Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

Reducing Universal Service Support	)	RM- _____
In Geographic Areas That Are	)	
Experiencing Unsupported	)	
Facilities-Based Competition	)	

PETITION FOR RULEMAKING

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EXECUTIVE SUMMARY

In this petition for rulemaking, the National Cable & Telecommunications Association (NCTA) proposes that the Commission establish procedures to reduce the amount of universal service support provided to carriers in those areas of the country where there is extensive, unsubsidized facilities-based voice competition and where government subsidies no longer are needed to ensure that service will be made available to consumers. The Commission's high-cost support mechanisms are premised on the assumption that a particular location would not have affordable service available but for the support provided by the program. But in markets with extensive facilities-based competition, that assumption no longer holds true. The presence of one or more unsubsidized wireline competitors generally should be sufficient to ensure that consumers will have access to reasonably priced service even if government subsidies are reduced or eliminated.

Under NCTA's proposal, the Commission would establish a two-step process by which any party may request that the Commission reassess the level of support provided to a particular geographic area. In the first step, the burden would be on the petitioner to demonstrate that the area meets one of two competition-based triggers. Specifically, the petitioner would be required to demonstrate either (1) that unsubsidized wireline competitors offer service to more than 75 percent of the customers in an area without support or (2) that the state has found sufficient competition to substantially deregulate the retail rates charged by an incumbent local exchange carrier (ILEC).

If one or both of those triggers is satisfied, the Commission would initiate the second step of the proceeding. In that step, the burden would be on a USF recipient to demonstrate the minimum amount of support necessary to ensure that non-competitive portions of the area will continue to be served. In this stage of the process, the Commission would identify any ILEC

costs, including costs attributable to any provider of last resort obligations imposed under state law, that cannot be recovered through any of the services (regulated or unregulated) provided over the network in the portion of the study area without competition.

NCTA's proposal is a modest first step on the road to USF reform. In particular, it recognizes that the competitive situation in each market is different and that a one-size-fits-all solution may not be feasible. Rather, NCTA is proposing a fact-based approach that appropriately reflects marketplace realities. The initial screen we propose is intended to ensure that only areas with extensive unsubsidized wireline competition will be subject to review, while the second step of the proposed process will provide USF recipients a full opportunity to demonstrate any continued need for high-cost support.

As explained in the attached report by Dr. Jeffrey Eisenach, over $1 billion in high-cost support goes to rural LECs and competitive eligible telecommunications carriers (CETCs) in areas experiencing extensive facilities-based competition. Non-rural LECs and CETCs in states that have deregulated retail rates receive support totaling almost another $1 billion. With the USF contribution factor continuing to escalate at a dramatic pace, reducing these funding levels in areas where support no longer is needed is critically important. Taking steps to reduce the contribution factor and control the size of the existing high-cost fund will enable the Commission to begin considering whether, and how, it may be able to use USF funding to provide additional targeted subsidies that can more efficiently help to meet the Nation's broadband policy goals.

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PETITION FOR RULEMAKING

Pursuant to 47 C.F.R. § 1.401, the National Cable & Telecommunications Association (NCTA) submits this petition seeking new rules to expedite the transition of the federal high-cost fund away from a monopoly-era support program and toward a more modern, neutral, and pragmatic mechanism.[1] In particular, we propose that the Commission establish procedures to reduce the amount of high-cost support provided to carriers in those areas of the country where unsupported facilities-based voice competition is flourishing and where government subsidies no longer are needed to ensure that service will be made available to consumers.[2] As explained below, the continuing need for almost $2 billion in funding should be reassessed by the Commission pursuant to the procedures proposed in this petition. With the contribution factor continuing to escalate at a rapid pace,[3] reducing wasteful spending in areas that are experiencing

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[1] Attachment A to this petition includes a set of proposed rules as required under 47 C.F.R. § 1.401(c).

[2] NCTA's proposal would not affect support received under the Lifeline or LinkUp programs. The proposal also would not affect high cost support to tribal lands. *See infra* n.32. As a result, NCTA's proposal ensures continued support to those most in need of universal service support to ensure that basic telecommunications service needs are met.

[3] *See* Jeffrey A. Eisenach, *Universal Service Subsidies To Areas Served By Cable Telephony* at 29 (November 2009) (attached as Attachment B) (Report or Eisenach Report) (documenting contribution factor changes from 2000 – 2009); *see also* Universal Service Administrative Company, Federal Universal Service Support Mechanisms Fund Size Projections for First Quarter 2010, Appendix M02, available at http://www.usac.org/about/governance/fcc-filings/2010/Q1/M02%20-%20Fund%20Size%20Projection%20for%201Q2010.xls (projecting over $2 billion in USF funding needed for the 1st quarter of 2010). The precise contribution factor for next quarter will depend on the revenue base that

robust facilities-based voice competition from wireline providers that do not receive funding is critically important. Reducing the contribution factor and controlling the size of the existing high-cost program also creates an opportunity for the Commission to consider whether, and how, it might establish targeted programs that promote broadband deployment and adoption.

INTRODUCTION

NCTA is the principal trade association for the U.S. cable industry, representing cable operators serving more than 90 percent of the nation's cable television households and more than 200 cable program networks. The cable industry is the nation's largest provider of high-speed Internet access ("broadband") after investing over $145 billion since 1996 to build two-way interactive networks with fiber optic technology.

When Congress directed the FCC to create the USF program in 1996,[4] incumbent local exchange carriers (ILECs) possessed a monopoly in the local exchange market, interexchange carriers were the only companies providing long distance service, wireless was a nascent service generally considered to be a luxury, and broadband Internet access was virtually nonexistent. Thirteen years later, "the communications landscape has undergone many fundamental changes that were scarcely anticipated when the 1996 Act was adopted."[5] With respect to telephony, cable operators today provide voice service to over 20 million customers, often offering it in

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will be assessed for purposes of collecting this $2 billion, but some analysts believe it will exceed 14 percent, which would be the highest level ever. *See* Stifel Nicolaus, *Industry Assessments Expected to Jump, Up Pressure for USF/Intercarrier Reform* (Nov. 3, 2009).

4 47 U.S.C. § 254(a)(2).

5 *High-Cost Universal Service Support*, WC Docket No. 05-337, *et al*, Order on Remand and Report and Order and Further Notice of Proposed Rulemaking, 24 FCC Rcd 6475, 6493, ¶ 39 (2008) (*Comprehensive Reform FNPRM*).

rural areas throughout the country.[6] Already, cable's entry into the voice market has produced tens of billions of dollars in consumer benefit and promises even greater benefits in the future.[7]

No less striking has been the rapid expansion of cable broadband services. Cable operators have built, with private capital, broadband infrastructure that today is available to 92 percent of U.S. households. In 1996, cable operators counted less than a million broadband subscribers, but today cable provides broadband service to an estimated 40 million subscribers. In most areas, cable operators are providing these services in competition with services offered by an ILEC, as well as multiple wireless providers and, in some cases, satellite providers.

Notwithstanding these fundamental marketplace changes, however, the USF program operates as if nothing has changed since 1996. Even as millions of Americans take service from facilities-based wireline competitors, and millions more decide they no longer need wireline voice services at all,[8] the Commission continues to provide billions of dollars of support for wireline voice services provided by ILECs. And because of structural flaws in the USF program, new entry by facilities-based competitors often has the perverse effect of *increasing* the subsidy a geographic area receives.[9] As a result, the total size of the federal USF program, and the resulting burden on consumers, continues to escalate at a staggering rate.[10]

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[6] Many cable operators offer these services at national rates that are the same in rural areas as they are in urban areas. *See* Comments of the National Cable & Telecommunications Association, WC Docket No. 05-337 (filed May 8, 2009) (NCTA NOI Comments) at 8-9. Cable voice services generally are available on a stand-alone basis or as part of a bundle with high-speed Internet service and/or multichannel video service.

[7] Michael Pelcovits and Daniel Haar, *Consumer Benefits from Cable-Telco Competition* (updated Nov. 2007), available at http://www.micradc.com/news/publications/pdfs/Updated_MiCRA_Report_FINAL.pdf.

[8] As reported by the Centers for Disease Control, over 20 percent of American households now rely exclusively on wireless service for their telecommunications needs and another 15 percent purchase wireline service but receive all or virtually all of their calls on a wireless phone. Blumberg and Luke, *Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July-December 2008* (rel. May 6, 2009), available at http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless200905.pdf.

[9] The Commission has addressed this issue on a temporary basis by adopting an interim cap on CETC support. *High-Cost Universal Service Support*, WC Docket No. 05-337, Order, 23 FCC Rcd 8834 (2008) (*Interim Cap*

Compounding these concerns is the near universal recognition that some level of government subsidy will be needed to achieve the congressional goal of providing all Americans with access to broadband capability. As NCTA has explained previously, with contribution rates now exceeding 12 percent (and expected to climb even higher), simply extending the existing USF program to cover broadband services and facilities is not a viable option for the Commission.[11] Rather, any effort to use the USF program to subsidize broadband must be preceded by actions to control the size of the existing mechanisms and to more carefully target any future subsidy.

In this petition, NCTA offers a fresh approach to calculating the level of high-cost support in study areas that are experiencing facilities-based wireline voice competition. The basic premise underlying this proposal is that the amount of high-cost support should be substantially reduced, if not eliminated completely, in geographic areas where deregulatory actions by the state or other marketplace evidence suggests that facilities-based competition from unsubsidized entrants is extensive. As Commissioner McDowell recently explained, "a Universal Service system should not reward companies for losing customers to competitors."[12]

The Commission's high-cost mechanisms are based on the assumption that a particular location would not have affordable voice service available but for the support provided by the

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Order). To the extent it would reduce support to all providers in areas experiencing unsubsidized competition, NCTA's proposal represents a more comprehensive approach to addressing this issue.

[10] *See* n.3 supra; *see also Comprehensive Reform FNPRM* at ¶ 39; Presentation of the Omnibus Broadband Initiative team to the Federal Communications Commission, Slide 48 (Sept. 29, 2009), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-293742A1.pdf.

[11] NCTA NOI Comments at 5 ("it would be irresponsible for the Commission to focus on broadband without first fixing the current USF mechanism to avoid unnecessary and wasteful payments").

[12] *High-Cost Universal Service Support*, WC Docket No. 05-337, Order and Notice of Proposed Rulemaking, FCC 09-89, Concurring Statement of Commissioner Robert M. McDowell (rel. Oct. 9, 2009).

program.[13] But in markets with extensive facilities-based competition, that assumption no longer holds true. The presence of one or more unsubsidized wireline competitors should be sufficient to ensure that consumers will have access to reasonably priced service even if government subsidies are reduced or eliminated.

Under NCTA's proposal, the Commission would establish a two-step process by which any party may request that the Commission reassess the level of support distributed to providers to a particular study area. In the first step, the burden would be on the petitioner to demonstrate that the area meets one of two competition-based triggers. Specifically, the petitioner would be required to demonstrate either (1) that wireline competitors offer service to more than 75 percent of the customers in an area without support or (2) that the state has found sufficient competition to substantially deregulate an ILEC's retail rates. If one or both of those triggers is satisfied, the Commission would initiate the second step of the proceeding. In that step, the burden would be on a USF recipient to demonstrate the minimum amount of support necessary to ensure that non-competitive portions of the area will continue to be served. As explained below, this process would identify those ILEC costs that cannot be recovered through any of the services (regulated and unregulated)[14] provided in the non-competitive portion of the study area, including costs associated with any applicable provider of last resort (POLR) obligations.

As explained in the attached report by Dr. Jeffrey Eisenach, over $1 billion in high-cost support goes to rural LECs and CETCs in areas experiencing extensive facilities-based

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[13] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Fourteenth Report and Order, Twenty-Second Order on Reconsideration and Further Notice of Proposed Rulemaking, 16 FCC Rcd 11244, 11251, ¶ 13 (2001).

[14] Michael D. Pelcovits, *Debunking the Make-Whole Myth: A Common Sense Approach to Reducing Irrational Telecommunications Subsidies, White Paper #3* (Nov. 17, 2008) (Pelcovits Subsidy Paper) at 26 ("Simply put, there is no reason to subsidize an ILEC to serve an area where revenue from voice, data and video service is sufficient to offset the costs of providing service."), available at http://www.micradc.com/news/publications/pdfs/MP/White_Paper_3_FINAL.pdf.

competition.[15] Non-rural LECs and CETCs in states that have deregulated retail rates receive support totaling almost another $1 billion. Reducing these funding levels in areas where support no longer is needed is critical to bringing the USF contribution factor back to more reasonable levels and is an essential prerequisite to considering whether, and how, USF funding could be used to provide additional targeted subsidies that can more efficiently help to meet the Nation's broadband policy goals.[16]

I. THE CURRENT USF PROGRAM HAS NOT BEEN UPDATED TO REFLECT IMPROVED TECHNOLOGY AND INCREASED FACILITIES-BASED WIRELINE COMPETITION

A. Competitive Developments Have Reduced The Need For Support In Many Areas Of The Country

Since the USF program was established, the communications marketplace has witnessed significant improvements in technology, particularly the transition to IP-based equipment and services. These advancements have made it possible for some cable operators and other facilities-based competitors to enter areas without support where competitive entry may have been economically prohibitive in the past and to offer a wider array of services.

While cable voice services initially were introduced in urban areas, today cable operators provide competitive voice service in hundreds of rural areas across the country. The Eisenach Report documents the extensive scope of cable voice services in areas served by rural ILECs. The report finds that cable voice service is available to approximately 80 percent of U.S.

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[15] Report at 2.

[16] Because this process will take time, NCTA continues to support the adoption of a cap on the total size of the high-cost program. NCTA NOI Comments at 5 ("[T]he first step in any USF reform effort should be for the Commission to cap the total size of the high-cost fund."). Capping the fund is the only way to guard against continued escalation in the amount consumers are paying for this program while the Commission considers how to transition to a more rational approach.

households.[17] In rural LEC study areas, the report finds that over 6.6 million households, or 43 percent, have access to cable voice services.[18]

The Eisenach Report's documentation of the extent of cable voice service in rural areas is echoed by numerous ILECs, who routinely point to the existence of such competition as the basis for their own regulatory relief. For example, in a filing last year, Embarq (now part of CenturyLink) stated that it faced competition from cable operators for 70 percent of the households in its largely rural service area.[19] Other ILECs also have acknowledged that they face extensive competition in rural areas.[20]

The Eisenach Report also confirms that cable operators are not merely "cherry picking" low-cost customers and leaving rural LECs to serve the highest-cost customers. In many areas, cable operators offer service to more than 75 percent of households, and in some cases they offer service to 90-100 percent of households in the ILEC's study area.[21] Moreover, as the Eisenach Report demonstrates, there are numerous areas where the portion of a study area that is not

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[17] As discussed in the report, estimates vary on the extent of cable voice coverage. Kagan estimates the availability figure at 84 percent, while Warren estimates it at 74 percent. Report at 15. The Commission first required VoIP providers to report subscriber data in March 2009. When that data is published by the Commission, it should provide an accurate estimate of the availability of cable VoIP services, on a census tract basis, for year-end 2008.

[18] Report at 16. That figure would be even higher were it not for the continuing efforts of some rural LECs to refuse to interconnect with cable operators and the wholesale providers they work with. For example, Comcast requested interconnection with Telephone and Data Systems, Inc. (TDS) affiliates in six different states between April and July of 2008. Eighteen months later, Comcast is just completing arbitrations where the sole issue raised by TDS was whether Comcast was entitled to interconnection. During 2008, TDS and its affiliates received over $231 million in federal USF support. Time Warner Cable has encountered similar resistance to its entry by a number of rural ILECs. *See* Letter from Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 09-51 (filed Oct. 21, 2009).

[19] Petition for Waiver of Embarq Local Operating Companies, WC Docket No. 08-160 (filed Aug. 1, 2008) at 14 ("Moreover, the potential competition that VoIP actually represents is even greater than it appears, given that cable-based telephony, which nearly always also provides a broadband connection into households, is available to more than 70 percent of customers in Embarq's service territories-a percentage that continues to grow.").

[20] *See, e.g.*, Centurytel Petition for Conversion to Price Cap Regulation and For Limited Waiver Relief, WC Docket No. 08-191 (filed Aug. 29, 2008) at 10; Windstream Petition for Conversion to Price Cap Regulation and For Limited Waiver Relief, WC Docket No. 07-171 (filed Aug. 6, 2007).

[21] Report at 20.

served by cable appears to be no more expensive to serve than the area that is covered, which suggests that support may be unnecessary even in the noncompetitive portion of the study area.[22] As the Commission previously has recognized, cable franchise areas often do not have the same boundaries as ILEC study areas.[23] The Eisenach Report demonstrates that in many cases the portion of a study area not served by a cable operator has the same density and topography as the area that is served. Because these factors, particularly density, are strongly correlated with the cost of building facilities, high-cost support may be unnecessary in these circumstances.[24]

Significantly, cable operators generally have entered these areas without any federal high cost support. The extensive availability of unsubsidized cable voice services in rural America makes clear that the Commission can dramatically reduce the amount of support that is provided to many areas of the country without any reduction in the quality of service available to consumers living in those areas.[25] The Commission should seize the opportunity to establish a process that makes such reductions a reality.

B. Flaws In The Current USF System Result In Increased Support For Areas That Should Receive Less Support

As the Commission recognized last year, the current support mechanisms do not reflect the significant marketplace changes described in the previous section.[26] While the rural and non-

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[22] Report at 21-24.

[23] *Federal-State Joint Board on Universal Service*, WC Docket No. 05-337, Notice of Proposed Rulemaking, 23 FCC Rcd 1495, 1503, ¶ 19 (2008).

[24] For example, in proceedings in Maine, Time Warner Cable demonstrated that its proposed service area had cost characteristics similar to the areas served by the rural ILECs that were attempting to block its entry. *See* Direct Testimony of Dr. August H. Ankum on Behalf of CRC Communications of Maine at 59-72, Maine PUC Docket Nos. 2009-40, 41, 42, 43, 44 (filed Oct. 9, 2009).

[25] Press Release, *J.D. Power and Associates Reports: Overall Consumer Satisfaction with Residential Telephone Services Increases Considerably* (Sept. 16, 2009) ("The 2009 study marks the third consecutive year that traditional cable television providers have achieved the highest rankings in all regions included in the study."), available at http://www.jdpower.com/corporate/news/releases/pressrelease.aspx?ID=2009199.

[26] *Comprehensive Reform FNPRM* at ¶ 39 ("The communications landscape has undergone many fundamental changes that were scarcely anticipated when the 1996 Act was adopted. . . . these developments have challenged

rural high-cost programs have enabled some companies to build networks to serve areas that otherwise might have been uneconomic to serve, they provide far more support, for a far longer time, than is necessary to ensure the availability of service in some areas. This is especially true as many ILECs have accumulated very large depreciation reserves on their embedded plant, thereby reducing substantially the size of their regulated rate base.[27]

One reason for this situation is that neither program contains a mechanism for reassessing whether the need for support to a particular location or carrier has changed due to changing conditions in the marketplace. The Commission's initial decision that an area is "high cost" – and therefore needs USF support – implicitly assumes that these high costs preclude entry by unsubsidized competitors. But there is no mechanism for revisiting whether a particular area should receive high-cost support, even where evidence demonstrates that facilities-based competitors have entered the market and are offering affordable voice service without subsidies. As a result, the Commission is providing hundreds of millions of dollars every year to LECs and CETCs that are serving areas that no longer need to be subsidized.

Not only does the current USF program not reassess whether support is still needed in a particular area, or whether it is needed at current levels, but the rural LEC program includes features that lead to ever-increasing growth in the amount of support once competitive entry occurs. Under the program for rural LECs, as competitors enter a market and win customers from the incumbent, the amount of per-line support provided to a rural LEC increases because of Commission rules that average all fixed costs across the number of lines served.[28] As the Joint

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the outdated regulatory assumptions underlying our universal service and intercarrier compensation regimes, forcing us to reassess our existing approaches.").

[27] Pelcovits Subsidy Paper at 21-25.

[28] *See In the Matter of Federal-State Joint Board on Universal Service; Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange*

Board has explained, "most of the existing mechanisms were introduced before local exchange competition became a reality, and may not appropriately adjust support to reflect line losses due to competition."[29] Before the Commission adopted the interim cap on CETC support, the increased amount of per-line support served to attract additional CETC applications, which in turn resulted in further increases in per-line support. In short, were it not for the interim cap, the rules operate so that a competitor's market-based decision to serve a particular area without receiving support not only fails to reduce the amount of the subsidy provided to the incumbent, but it in fact creates an incentive for other providers to seek support.[30]

Providing increased government support to areas benefiting from private investment and competitive entry is exactly the opposite of what should occur under a well-structured program. When circumstances have changed to the point where competitive entry becomes economic without any subsidy, the appropriate question should be whether, and by how much, to *decrease* support. But the current regime never asks that question and has no procedure by which it can be raised. In the next section, NCTA offers a proposed solution to these problems.

Carriers, Fourteenth Report And Order, Twenty-Second Order On Reconsideration, and Further Notice Of Proposed Rulemaking In CC Docket No. 96-45, and Report And Order In CC Docket No. 00-256, 16 FCC Rcd 11244, 11294-95, ¶ 125 (*MAG Order*) ("If the incumbent's lines decreased while its fixed costs remained roughly the same, its per-line costs would increase. Consequently, the incumbent would be entitled to higher support per line.").

[29] *High-Cost Universal Service Support*, WC Docket No. 05-337, Recommended Decision, 22 FCC Rcd 20477, 20483, ¶ 22 (2007).

[30] For non-rural LECs, the Commission uses a forward-looking cost model to determine which "high cost" areas receive support. *See High-Cost Universal Service Support*, WC Docket No. 05-337, CC Docket No. 96-45, Notice of Inquiry, 24 FCC Rcd 4281, 4283, ¶ 4 (rel. Apr. 8, 2009) (*Qwest Remand NOI*). The amount of support a particular study area receives is not affected by competitive entry the way it is for rural LECs. But as NCTA has explained previously, the non-rural fund suffers from many other problems, such as a lack of any reliable method of ascertaining a non-rural LEC's costs. NCTA NOI Comments at 10-11.

II. THE COMMISSION SHOULD CONDUCT A PROCEEDING TO REASSESS SUPPORT LEVELS IF ONE OR MORE COMPETITION-BASED TRIGGERS IS SATISFIED

The presence of an unsubsidized facilities-based provider in a study area where one or more providers is receiving support is evidence that the high cost program is not working as it should, or rather, that it is working harder than is necessary given marketplace developments. In the past, the Commission has focused on ways to potentially reduce the support that is provided to CETCs in this type of scenario.[31] The decision to cap support to CETCs was at least a recognition of the need to control the size of the high-cost program, but it fails to address the full scope of the problem with the current regime. Where additional unsubsidized providers have invested in networks, the fundamental reason for providing USF support may no longer exist, and the Commission must look at whether it is possible to reduce the total amount of government support that is made available to the minimum level necessary to ensure that all customers continue to have service.

One challenge facing the Commission in reforming the current high-cost program is that competitive conditions vary from area to area and a one-size-fits-all approach may not be feasible. To address the problems identified above in a manner that reflects these marketplace realities, NCTA proposes that the Commission develop a fact-based procedure to reassess the amount of support made available to a particular location where there is evidence the market is working to make service available without subsidies.[32]

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[31] *Interim Cap Order*, 23 FCC Rcd at 8834, ¶ 1.

[32] NCTA proposes that tribal areas, including Alaska, be excluded from the scope of this petition. Tribal areas face special economic challenges in bringing even basic services to consumers and support to those locations should be left undisturbed. The Commission's universal service policies have long recognized the special telecommunications challenges for tribal lands, which persistently report the lowest telephone subscribership in the country. *See, e.g., High-Cost Universal Service Support, Federal-State Joint Board on Universal Service*, WC Docket No. 05-337, CC Docket No. 96-45, Order, 24 FCC Rcd 3369, 3372, ¶ 9 (2009); *Interim Cap Order*, 23 FCC Rcd at 8848, ¶ 32 (2008); *Federal-State Joint Board on Universal Service; Promoting Deployment and*

Specifically, NCTA proposes a two-step process. In the first step, any party may file a petition seeking a review of the amount of support that is distributed to a particular study area. The burden would be on the petitioner to demonstrate that one of the two competition-based triggers described below has been satisfied in that area. This initial screen is designed to focus the efforts of the Commission and other parties on the subset of study areas where competition is most advanced, while leaving support unaffected in areas that are less competitive. Where a petitioner makes the required showing, the Commission would proceed to the second step. In that step, the Commission would determine the minimum amount of support needed to ensure the continued provision of service to all customers, including the cost associated with complying with applicable provider of last resort obligations in that state. In the second step, the burden would be on a USF recipient to demonstrate the continued need for support.

A. Step 1 – Does The Geographic Area Satisfy One Of Two Triggers?

Trigger #1 – Extensive Coverage By Unsubsidized Wireline Competitors.

NCTA proposes that the Commission initiate a proceeding to reduce high cost support (Step 2 below) in any study area where it can be demonstrated that competitive wireline voice service from a provider that does not receive high-cost support is available to at least 75 percent of the households in the study area. Where a significant majority of customers in a study area have competitive alternatives available from an unsubsidized provider, the Commission can be confident that reducing support to any subsidized providers will not jeopardize the availability of reasonably priced service in that area. Establishing a threshold at the 75 percent level makes it

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Subscribership in Unserved and Underserved Areas, Including Tribal and Insular Areas, CC Docket No. 96-45, Twelfth Report and Order, Memorandum Report and Order, and Further Notice of Proposed Rulemaking, 15 FCC Rcd 12208, 12211-12, ¶ 2 (2000) (concluding that "existing universal service support mechanisms are not adequate to sustain telephone subscribership on tribal lands.").

less likely that the Commission will be presented with proposals to reduce support in situations where a competitor only serves the low-cost portion of the study area.

Even where a petitioner cannot demonstrate that an area meets the 75 percent threshold, the Commission also should advance to Step 2 upon a showing that competitive wireline service from a provider that does not receive high-cost support is available to at least 50 percent of the households in the study area and that the portion of the study area with no wireline competition has cost characteristics that are comparable to the covered portion (*e.g.*, similar terrain and population density). As explained in the Eisenach Report, a study area may have relatively uniform cost characteristics, but a cable operator may serve only a portion of that study area because its franchise boundaries do not match the boundaries of the ILEC study area.[33] The Commission should reassess the level of support provided in those cases just as it should in cases where the 75 percent threshold is satisfied.

The competition-based trigger described above is an extremely conservative first step toward meaningful USF reform. As shown in the Eisenach Report, at present the majority of rural LEC study areas would not currently qualify under this trigger and therefore would not experience any change in the level of high cost support they receive. And providers in those areas that do qualify would not automatically lose support, but instead would have the opportunity to demonstrate the level of support that is needed to ensure continued provision of service to all consumers in the area.

Moreover, for purposes of this element of NCTA's proposal, only facilities-based wireline providers that do not receive support would be considered in determining whether the coverage trigger is satisfied. Although there is growing evidence that consumers consider

[33] Report at 17-18.

wireless voice service to be a complete substitute for wireline voice service, the Commission has yet to make such a finding and we recognize that including wireless providers in this analysis would add complexity. Similarly, although millions of households that do not have access to cable voice services may have the ability to use over-the-top VoIP services through cable broadband connections, the availability of such services also would not be counted for purposes of the coverage trigger. While both wireless and over-the-top providers certainly offer competition to facilities-based wireline providers, and new options for consumers, the Commission might want to consider starting with a more conservative approach that focuses on the easiest cases for reducing support.

Trigger #2 – ILEC Deregulation.

As explained above, the premise underlying the high cost fund is that, absent financial support from the federal government, market forces would not be sufficient to ensure that services are provided in the supported location at reasonable rates. By contrast, a decision by a state commission or state legislature that an ILEC's rates no longer need to be regulated is premised on the opposite conclusion, *i.e.*, that market forces should be sufficient to ensure that service in the deregulated area will be provided at reasonable rates. Where a state has made such a finding and deregulated local exchange service provided by the ILEC (whether provided on stand-alone basis or as part of a bundled offering), the fundamental premise for providing a government subsidy is thrown into doubt and a process for reducing, if not eliminating completely, high cost support for the ILEC should be initiated.[34]

[34] NCTA's proposal is focused on situations where unsubsidized wireline competition exists in a particular study area. Areas with two or more subsidized wireline competitors present different, more complicated, issues. Given that such situations are relatively unusual, we have not included a specific proposal for how they should be addressed.

The record in the Commission's existing docket on USF reform already contains evidence of this phenomenon. Mississippi, for example, receives more non-rural support than any other state. As explained by the Mississippi Cable Telecommunications Association, "Mississippi is the 'poster child' for how far the USF system, particularly those portions supporting non-rural LECs, has strayed from whatever rational bounds may have existed."[35] The local rates of the largest ILEC in Mississippi (AT&T) have been substantially deregulated since 2006.[36] The decision by the Mississippi legislature to deregulate rates reflects its conclusion that market forces are more than adequate to ensure that service will be made available at reasonable rates. Given that finding by the state legislature, the Commission should revisit whether it is necessary to continue providing hundreds of millions of dollars to non-rural LECs in Mississippi.[37]

Many other states have been deregulating local rates, including some of the largest recipients of non-rural support. Some states have completely stopped regulating rates. The Iowa Utilities Board, for example, stopped regulating local rates in 2008.[38] The Indiana Utilities Regulatory Commission lost its ratemaking authority earlier this year.[39] The Alabama Public Service Commission will lose authority to regulate basic rates in 2011.[40]

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[35] Comments of the Mississippi Cable Telecommunications Association, WC Docket No. 05-337 (filed June 9, 2009) at 3 (MCTA NOI Comments).

[36] *Id.* at 2-3, citing Miss. Code Ann. § 77-3-35(4)(a). ("[T]he legislature has determined that, in the provision of all services other than switched access service and single-line flat rate voice communications service, competition or other market forces adequately protect the public interest.")

[37] MCTA NOI Comments at 3-4.

[38] Iowa Code § 476.1D ("Effective July 1, 2008, the retail rate jurisdiction of the board shall not be applicable to single line flat-rated residential and business service rates.").

[39] Ind. Code 8-1-2.6-13 ("After June 30, 2009, the commission does not have jurisdiction over any of the following with respect to a communications service provider: (1) Rates and charges for communications service…").

[40] Ala. Code 1975 § 37-2A-8(b)(1)(c) ("Beginning January 1, 2011, the commission shall not have any jurisdiction, right, power, authority, or duty to regulate, supervise, control, oversee, or monitor, directly or indirectly, the costs, rates, charges, terms, or conditions for basic telephone service.").

Other states have taken a slightly different approach, deregulating rates if an incumbent LEC can show that a threshold level of competition exists. Virginia, for example, will deregulate if an ILEC demonstrates that 75 percent of households can receive service from a competitive provider,[41] essentially the test NCTA proposes in Trigger #1 above. Along the same lines, Texas deregulates rates in any area with three providers, including wireless carriers.[42]

For purposes of this proposal, the deregulation trigger may be satisfied even in states that continue to require a stand-alone local service at regulated rates. Where an ILEC is authorized to provide local service as part of a deregulated bundle, all components of the bundle essentially are deregulated because there is no regulation of the bundled price. Given the popularity of bundled offerings, a continuing obligation to provide stand-alone local service at a regulated rate has little practical effect on the rates consumers pay for service. For the same reason, providing a subsidy to a service that is provided as part of a bundle has the effect of subsidizing the provision of each service in the bundle. In areas where unsubsidized providers are offering similar bundles, such an approach is an irresponsible use of government funding.[43]

While the details of deregulation vary, in all of these cases the decision by a state to deregulate retail rates severs the connection between the receipt of universal service funding and the reasonableness of a provider's rates.[44] At that point, with multiple providers offering service to consumers at unregulated rates, continuing to provide government support is wasteful and

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[41] Va. Code § 56-235.5 I.

[42] Tex Util. Cod. Ann. 26.134, 26.211, and 26.230.

[43] While a continuing obligation to offer stand-alone local exchange service at a regulated rate should not preclude a finding that Trigger 2 is satisfied, it should be considered in assessing the revenue potential of a particular area as part of the Step 2 process for determining how much support a carrier needs.

[44] Because the details of deregulation vary in each state, there may be study areas that satisfy Trigger 2 but not Trigger 1, *e.g.*, if a state considers wireless competition, which is not considered in Trigger 1, as a basis for deregulating ILEC rates. As long as one of the two triggers is satisfied, the Commission can be confident that a study area is sufficiently competitive that consideration of USF reductions in Step is warranted.

unnecessary and simply serves to skew the marketplace by providing funding to an incumbent carrier but not to its competitors.

B. Step 2 – What Is The Minimum Support Needed To Serve A Particular Area?

If the Commission finds a petition demonstrates that one or both triggers are satisfied, it should proceed to a review of the support situation in that study area. Such a proceeding would give the agency an opportunity to consider all of the relevant facts as to how competition has developed in that area, the prices that competitors are charging for regulated and unregulated services, and the effect on all providers, and on consumers, if high-cost support were reduced or eliminated. The goal of the proceeding should be to identify the limited subset of ILEC costs that (1) would not be incurred but for the provision of service to customers that do not have a competitive option and (2) cannot be recovered through rates for the services (regulated and unregulated) provided over the network in the portion of the study area with no competition.

This is a very different inquiry than takes place under the current system. For rural LECs, the current rules consider virtually all of a LEC's network costs and divide that amount by the number of lines served. As a rural LEC loses access lines, its average cost per line increases and it receives more support for each line.[45] As noted above, for non-rural LECs, the Commission uses a forward-looking cost model to determine which "high cost" areas receive support, and providers receive support for costs above a certain threshold.[46]

In contrast to either of these current approaches, the new approach proposed by NCTA starts from the premise that the costs of operating in the portion of the study area served by an unsupported provider should not be subsidized at all *(i.e.*, they should be recovered from

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[45] *MAG Order*, 16 FCC Rcd at 11294-95, ¶ 125.

[46] *Qwest Remand NOI*, 24 FCC Rcd at 4283, ¶ 4.

customers of the services provided over the network) and that the subsidy, if any, should be limited to those additional ILEC costs that are solely attributable to bringing service to the non-competitive portion of the study area and that cannot be recovered through these services. The burden should be on the ILEC to demonstrate that the total cost of serving areas where it is the sole provider is greater than the total revenues that it potentially can generate from services sold to customers in that area.[47] In cases where the ILEC's rates have been deregulated, any claim that costs cannot be recovered should be subject to particular scrutiny.

Focusing on identifying costs that cannot be recovered from services provided in the non-competitive portion of the study area should enable the Commission to eliminate completely certain categories of costs that currently are subsidized and to reduce many other categories. With respect to plant costs, for example, support generally should be limited to a portion of the loop costs associated with customers in the non-competitive portion of the study area because costs in remote areas may be so high that they cannot be recovered from customers. Conversely, support for switching costs should be reduced substantially, if not eliminated completely in most cases. Switching support is premised on the theory that an ILEC's small customer base cannot support the costs of a switch, but the deployment of a competing switching facility by an unsubsidized competitor demonstrates the economic feasibility of operating a switch in that location without support.[48] Although the ILEC's switching equipment obviously will continue to be used in serving customers in the noncompetitive portion of the study area, the Commission

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[47] The amount of high-cost support going to wireless CETCs in these study areas also should be reduced, if not eliminated entirely. Where a wireless CETC does not serve the portion of the study area for which the ILEC will be receiving support, it should no longer receive support. The situation is more complex where one or more wireless CETCs serve the portion of the study area for which the ILEC will be receiving support. The Commission has a number of options it may want to consider including requiring a cost showing comparable to that made by the ILEC or using competitive bidding to select one supported wireless provider in such areas.

[48] This assumes that an ILEC's switch is located in the competitive portion of the study area. In some circumstances, switching facilities located in the non-competitive portion of a study area may still warrant some support.

should presume that an ILEC will be able to recover those costs from its customers, just as they are in the competitive portion of the study area. The same is true for interoffice transport costs absent some demonstration to the contrary.

Similarly, the Commission should be able to reduce or eliminate support for most of the overhead costs associated with providing service. For example, there is no justification for subsidizing management salaries and many other corporate expenses when an unsubsidized competitor is providing service in the same study area and recovering those costs from its customers. Likewise, support distributed through Interstate Common Line Support (ICLS) and Interstate Access Support (IAS), which is not tied to any specific network costs, should be reduced significantly, if not eliminated entirely. In general, only costs associated with installation and maintenance of loop plant would continue to warrant subsidies and only if they would not otherwise be recovered through the provision of services over the network.

We anticipate that some ILECs will oppose these proposals on the grounds that they continue to need support even in competitive portions of a study area because they remain subject to POLR obligations. As a general rule, the Commission should reject these arguments. It is important to distinguish between the costs attributable to POLR requirements and the costs of operating in a competitive marketplace. In an area where a cable operator or other unsubsidized wireline competitor has built facilities and offers voice services, each providers' cost of operating and maintaining facilities is a cost attributable to *competition*. For example, any suggestion that the only reason an ILEC would maintain its facilities in a competitive area is because of a POLR obligation is based on a warped view of how competitive markets operate. One of the great benefits of facilities-based competition is that both incumbents and entrants

have strong incentives to act in ways that will help attract and retain customers, *e.g.*, by maintaining their plant in good condition, independent of any legal obligations to do so.[49]

In considering which costs an ILEC should be able to recover through the provision of network services, the Commission should consider revenues from both regulated and unregulated services that are provided in the non-competitive portion of the study area. Even in high-cost rural areas, companies provide multiple services over a single network because it is more efficient than building stand-alone networks for each service they provide. There is no reason for the Commission to ignore those efficiencies and look solely at the costs and revenues attributable to voice services. As explained in a paper by Dr. Michael Pelcovits, "there is no reason to subsidize an ILEC to serve an area where revenue from voice, data and video service is sufficient to offset the costs of providing service."[50]

The Step 2 review process proposed here is a rigorous, fact-based process, as should be the case whenever an entity asks the federal government to subsidize its commercial activities. That said, NCTA encourages the Commission to seek comment on whether there are proxies that could be used to streamline the process. For example, the Commission could consider establishing a sliding scale that would reduce support by a certain percentage that varies with the level of competition in the area, *i.e.*, ILECs in areas with more extensive unsubsidized competition would see larger reductions in their high-cost support than ILECs in areas with less extensive unsubsidized competition.

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[49] Once facilities-based competition is established in a particular area, there is no reason to think that either the incumbent or any new entrants will abandon the market. The reason for this is that the incremental cost of maintaining existing plant in order to stand ready to serve a customer that switches to a competitor is very low relative to the incremental revenue that could be earned if that customer switches back. But to err on the side of caution, the Commission may want to solicit comment on whether any safeguards are needed, beyond the existing Section 214 discontinuance process, in the unlikely event that one provider decides to leave the market following a Commission decision to reduce high-cost support.

[50] Pelcovits Subsidy Paper at 26.

III. ESTABLISHING THE PROCESS PROPOSED IN THIS PETITION WILL ENABLE THE COMMISSION TO CONSIDER WHETHER, AND HOW, TO FUND TARGETED BROADBAND PROGRAMS

Reducing unnecessary and wasteful high-cost support is a worthy goal for the Commission to pursue in its own right. In difficult economic times, reducing the USF assessment that appears on consumers' bills every month certainly would be welcome. As the contribution factor continues to escalate, it is more important than ever that the Commission begin to eliminate support where it no longer is needed.

But reducing the USF burden on consumers is not the only option available to the Commission. As the record in the *National Broadband Plan* proceeding demonstrates, achieving the congressional goal of universal access to broadband capability will be difficult to achieve without government programs dedicated to deploying facilities in unserved areas and promoting adoption by underserved populations. As the Commission considers NCTA's proposal to reduce support where it no longer is needed, it separately should consider whether, and how, it could redirect any savings from NCTA's proposal to provide targeted funding to programs that promote broadband deployment and adoption.

CONCLUSION

As described in this petition and the attached Eisenach Report, there is extensive wireline competition in many rural areas that are receiving federal high-cost support. Adoption of NCTA's proposal would provide a mechanism to reduce, and in some cases eliminate, unnecessary federal support to those areas where facilities-based competitors are able to offer service without support. While adoption of this proposal could have a significant revenue effect on ILECs and CETCs that are operating in these competitive study areas, this reckoning to account for competitive entry is long overdue and fully warranted by the technological and competitive developments described above. Simply put, where there is extensive unsubsidized

wireline competition in a study area, it would be irresponsible for the Commission not to scale back support to the minimum level necessary to ensure continued provision of service. Accordingly, the Commission should move expeditiously to adopt NCTA's proposals for reducing support to ILECs and CETCs in areas experiencing facilities-based wireline voice competition so that it can reduce the contribution factor and start considering whether, and how, to direct support to more carefully targeted programs that will accelerate the deployment and adoption of broadband.

Respectfully submitted,

/s/ Neal M. Goldberg

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November 5, 2009

ATTACHMENT A – PROPOSED RULE

PROPOSED RULE

54.317 Petitions to reduce support in areas with extensive facilities-based competition

(a) Petitions to reduce support

(1) Any party may submit a petition requesting that the Commission reduce the amount of support that otherwise would be made available to an eligible telecommunications carrier in a particular study area pursuant to Subpart D (High-Cost Fund), Subpart J (IAS), or Subpart K (ICLS) of this chapter.

(2) Petitioner shall bear the burden of demonstrating that, in the study area covered by the petition, (A) there is extensive facilities-based competition from one or more competing wireline providers that do not receive such support, or (B) the state government has substantially deregulated the local exchange rates charged by the incumbent local exchange carrier in that study area.

(A) *Extensive facilities-based competition*. The petitioner shall demonstrate that at least 75 percent of the households in the study area have the ability to purchase voice services from a competitive facilities-based wireline provider or that at least 50 percent of households have such an option and that the cost characteristics (*e.g.*, population density) of the portion of the study area not served by such competitors are similar to those in the competitive portion of the study area.

(B) *Substantial state deregulation*. The petitioner shall demonstrate that the retail rates for local exchange service offered by the incumbent local exchange carrier in the relevant study area have been deregulated throughout the relevant area. For purposes of this test, rates will be considered deregulated if there is no regulation of the rate charged for local

exchange service offered on a stand-alone basis or if the carrier is authorized to provide local exchange service in a bundle of services for which the total rate of the bundle is not regulated.

(b) Review of support levels

(1) If the Commission finds that a petitioner satisfies one or both of the requirements in section (a)(2), the burden shall shift to recipients of support to demonstrate the level of support, if any, that is necessary to continue to provide universal service, as defined in 54.101, to consumers in the portions of the study area where service is not provided by any competing facilities-based wireline provider.

(2) In deciding the necessary level of support for a particular carrier in a particular study area, the Commission shall consider the ability of the carrier to recover network costs through the provision of both regulated and unregulated services provided over the carrier's network in the non-competitive portion of the study area. The Commission also shall consider whether a carrier incurs costs in the relevant area that would not be incurred but for existence of an obligation to operate as a provider of last resort in that area.

ATTACHMENT B – REPORT OF DR. JEFFREY A EISENACH

EMPIRIS LLC

UNIVERSAL SERVICE SUBSIDIES TO AREAS SERVED BY CABLE TELEPHONY

JEFFREY A. EISENACH, PH.D.[†]

November 2009

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† Chairman and Managing Partner, Empiris LLC and Adjunct Professor, George Mason University Law School. I am grateful to Kevin Caves and Andrew Card for research assistance, and to several commenters for helpful suggestions. Any remaining errors are my own. Support for this paper was provided by the National Cable and Telecommunications Association.

CONTENTS

I. INTRODUCTION

In 2008, the Federal Universal Service Fund (USF) paid out more than $4.4 billion to ensure the availability of "reasonably affordable" telephone service in "high cost" areas of rural America, the majority of which ($2.4 billion) went to rural wireline telephone companies. When the high-cost USF program was created roughly a decade ago, these companies were the only facilities-based providers of wireline telephone service to much of rural America.

In recent years, however, cable television companies have begun offering voice service. Initially, cable voice service was offered mainly in urban areas, but by 2008 Kagan Research reported it was available to 84 percent of U.S. households. And, despite the fact that cable companies receive virtually no USF support,[1] cable telephone service is now available to millions of the same rural households for which rural phone companies receive subsidies. The existence of unsubsidized cable telephony in these areas is *prima facie* evidence that a significant portion of the subsidies paid to rural telephone companies are no longer necessary to meet the goal of reasonably affordable service.

This study analyzes the extent, and estimates the amount, of such excess subsidies, taking into account the fact that cable voice is often available to only a portion of a rural company's service territory. The evidence presented below demonstrates that approximately $1.6 billion was spent in 2008 to subsidize rural telephone companies in the hundreds of rural service territories where cable companies now offer voice service to at least some households. Rural telephone companies claim these subsidies are still needed, because cable companies and other

[1] A small number of cable operators in rural areas have been designated as Competitive Eligible Telecommunications Carriers (CETCs), and receive some USF support as a result of this designation. USF

competitors often serve only the most densely populated, and hence least expensive to serve, portions of their study areas. The analysis here, however, shows that this argument is often incorrect: Based on an analysis of population density and topography (the two factors that most heavily affect the costs of providing wireline telecommunications services), cable companies often serve portions of study areas which are no less costly, or even more costly, to serve than the overall study area. Indeed, depending upon which cost measure is used, rural companies are receiving between $434 million and $769 million annually for serving such study areas. Moreover, the USF pays additional funds to competitive carriers (CETCs) operating in these areas: When payments to CETCs are included, the potential savings to the USF from eliminating these unnecessary subsidies is between $591 million and $1 billion, or between 13 percent and 24 percent of the HCF's total 2008 outlay of $4.4 billion.

The remainder of this paper is organized as follows. Section II briefly summarizes the USF program as it applies to local telephone companies, cable companies, and other telecommunications carriers, and summarizes recent debates about the need to control the size of the fund. Section III presents an analysis of the extent to which rural telephone companies are receiving funds for providing service in areas served by unsubsidized cable companies, and provides estimates of the amount of excess subsidies being paid. Section IV explains how excess USF subsidies distort the marketplace and waste taxpayer money. Section V presents some suggestions for USF reform. Section VI contains a summary and conclusions.

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subsidy payments to these rural cable CETCs are trivial when compared with subsidies received by RLECs, and came to less than $324,000 nationwide in 2008.

II. THE UNIVERSAL SERVICE FUND AND THE EMERGENCE OF COMPETITION

The concept of universal service can be traced back to the 1907 annual report of AT&T (the old "Ma Bell"), which introduced the idea of a single "universal" telephone system in order to justify its attempts to achieve a statutory monopoly.[2] Today, however, universal service is associated with the idea, embodied in the preamble to the Communications Act of 1934, that one goal of communications policy is to make telecommunications services available to "all the people of the United States" at "reasonable charges."[3] Under the AT&T monopoly, this meant setting rates so as to cross-subsidize some customers at the expense of others. The emergence of competition – first for equipment and long-distance services and then, with passage of the Telecommunications Act of 1996, in local markets as well – made implicit cross-subsidies unworkable. However, efforts to replace implicit cross subsidies with explicit ones have met with only partial success, especially with respect to rural carriers, which continue to receive subsidies based on anachronistic definitions and formulas. As a result, rural subsidies are higher than necessary, investment incentives are distorted, and consumers ultimately are not served by the most efficient technologies and carriers.

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[2] For a brief history of universal service policies in the U.S., *see* Robert W. Crandall and Leonard Waverman, *Who Pays for Universal Service?* (Washington, DC: Brookings Institution, 2000) at 5-11.

[3] *See* Communications Act of 1934, as amended, 47 U.S.C.A. § 151 (stating the law is enacted "for the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States, a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges.") *See also*, 47 U.S.C. 254 (b) (enumerating statutory principles for universal service programs),and Federal Communications Commission, *Fourteenth Report and Order, Twenty-Second Order on Reconsideration, and Further Notice of Proposed Rulemaking in CC Docket No. 96-45, and Report and Order in CC Docket No. 00-256* (May 23, 2001) (hereafter *Rural Task Force Order*) at ¶13. ("The purpose of high-cost universal service support is to help provide access to telecommunications service in areas where the cost of such service otherwise might be prohibitively expensive.")

A. Universal Service and the Telecom Act of 1996

For most of the 20th Century, universal service policy in practice consisted of implicit cross-subsidies imposed on monopoly telephone companies by the Federal Communications Commission (FCC or "Commission") and state public utilities commissions, primarily through retail price controls (for example, setting urban and business rates above cost in order to support below-cost rural and residential rates) and long-distance access charges (i.e., setting the prices paid by long distance carriers to terminate traffic on local carriers' networks above cost).

By introducing competition into local telephone markets, the 1996 Telecommunications Act ("the Act") effectively made implicit cross-subsidies unsustainable. As the Federal Communications Commission (FCC) explained in its 1997 order adopting new universal service policies:

> Implicit subsidies were sustainable in the monopoly environment because some consumers (such as urban business customers) could be charged rates for local exchange and exchange access service that significantly exceeded the cost of providing service, and the rates paid by those customers would implicitly subsidize service provided by the same carrier to others. By adoption of the 1996 Act, Congress has provided for the development of competition in all telephone markets. In a competitive market, a carrier that attempts to charge rates significantly above cost to a class of customers will lose many of those customers to a competitor.[4]

Accordingly, the Act called for a system of explicit subsidies, funded by assessments on long distance (i.e., interstate and international) telecommunications services.[5] In addition, to

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[4] *See* Federal Communications Commission, *In the Matter of Federal-State Joint Board on Universal Service, Report and Order,* CC Docket No. 96-45 (May 8, 1997) at ¶17 (hereafter *First Report and Order*).

[5] The Commission subsequently extended this requirement to VoIP services, including those provided by cable operators.

ensure that USF subsidies did not discriminate against new entrants, it made competitive carriers eligible for USF support.[6]

Implementing the Act's universal service provisions has proven to be a vexing challenge. The Commission's first USF proceeding, CC Docket No. 96-45, was opened in May 1996, and continues to this day. During its 13-year (and counting) lifespan, the docket has (according to the Commission's Electronic Comment Filing System) collected over 228,000 individual filings – many of them hundreds of pages in length. Yet, despite these efforts, the FCC itself admits that the USF program continues to be based on "outdated regulatory assumptions."[7] One of the consequences of the FCC's inability to come to grips with universal service is that, despite Congress' expectation that "competition and new technologies would reduce, not increase, the overall need for universal service support by lowering costs,"[8] USF subsidies, and the "contributions" required to support them, have grown dramatically.

B. USF Subsidies to Rural Telephone Companies

Rural telephone companies (RLECs) are defined in the Telecommunications Act.[9] While the law treats them differently in certain respects,[10] with respect to universal service they are

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6 *See* 47 U.S.C. 214 (e).

7 *See* Federal Communications Commission, *Order on Remand and Report and Order and Further Notice of Proposed Rulemaking*, CC Docket 96-45 (November 5, 2008) at ¶39 (hereafter *November 2008 NOI*).

8 *See* Federal-State Board on Universal Service, *In the Matter of Federal State Board on Universal Service, CC Docket 96-45, Recommended Decision* (February 27, 2004) at ¶65, n. 80 (citing S. Rep. No. 23, 104th Cong., 1st Sess. 26: "The Committee expects that competition and new technologies will greatly reduce the actual cost of providing universal service over time, thus reducing or eliminating the need for universal service support mechanisms as actual costs drop to a level that is at or below the affordable rate for such service in an area.") (hereafter *Jt. Board 2004 Recommended Decision*).

9 As defined in the Telecommunications Act, "[t]he term 'rural telephone company' means a local exchange carrier operating entity to the extent that such entity -- (A) provides common carrier service to any local exchange carrier study area that does not include either -- (i) any incorporated place of 10,000 inhabitants or more, or any part thereof, based on the most recently available population statistics of the Bureau of the Census; or (ii) any territory, incorporated or unincorporated, included in an urbanized area, as defined by the Bureau of

governed by the same basic statutory principles as non-rural carriers: The Act instructs the Commission to pursue policies designed to ensure that rural areas receive services that are "reasonably comparable" to those in urban areas and that are made available at "just, reasonable and affordable rates."[11]

The USF is comprised of four major funds, which in 2008 spent a total of $7.6 billion. The largest of the four is the High Cost Fund ("HCF"), which is targeted at rural and other high cost areas.[12] In 2008, the HCF spent approximately $4.4 billion, or 58 percent of total USF expenditures. The other USF programs provide subsidies for Low Income customers, Rural Health Care, and Schools and Libraries. Figure 1 shows the major components of USF spending from 2000 through 2008.

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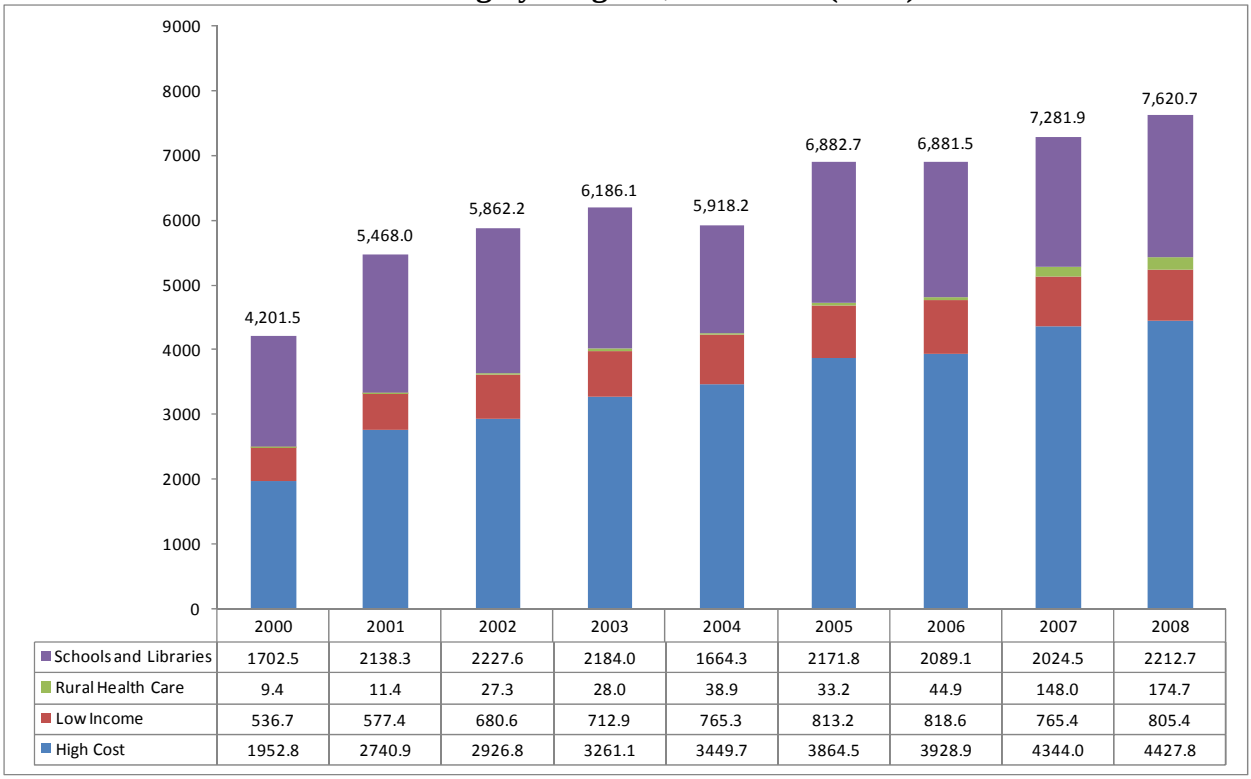
the Census as of August 10, 1993; (B) provides telephone exchange service, including exchange access, to fewer than 50,000 access lines; (C) provides telephone exchange service to any local exchange carrier study area with fewer than 100,000 access lines; or (D) has less than 15 percent of its access lines in communities of more than 50,000 on the date of enactment of the Telecommunications Act of 1996." *See* 47 U.S.C. § 3(a).

[10] Most notably: (1) Rural telephone companies are presumptively exempt from the Act's aggressive resale and unbundling requirements [*See* 47 U.S.C. § 251(f)(1)]; and, (2) the process by which competitive carriers can become certified to receive USF subsidies in rural service territories requires an affirmative finding by the state PUC that the certification is in the public interest [*See* 47 U.S.C. 214(e)2].

[11] *See* 47 U.S.C. 254 (b) (enumerating statutory principles for universal service programs).

[12] See Federal-State Joint Board on Universal Service, *Universal Service Monitoring Report* (2008) (available at http://www.fcc.gov/wcb/iatd/monitor.html), at 3-1 (hereafter *Monitoring Report*).

Figure 1:
USF Funding by Program, 2000-2008 ($mil.) [13]



	2000	2001	2002	2003	2004	2005	2006	2007	2008
Schools and Libraries	1702.5	2138.3	2227.6	2184.0	1664.3	2171.8	2089.1	2024.5	2212.7
Rural Health Care	9.4	11.4	27.3	28.0	38.9	33.2	44.9	148.0	174.7
Low Income	536.7	577.4	680.6	712.9	765.3	813.2	818.6	765.4	805.4
High Cost	1952.8	2740.9	2926.8	3261.1	3449.7	3864.5	3928.9	4344.0	4427.8

As shown in Table 1, the HCF is comprised of seven principal programs, five of which provide subsidies primarily to rural carriers: High Cost Loop Support (HCLS); Interstate Common Line Support (ICLS); Local Switching Support (LSS); Safety Net Additive Support (SNAS); and Safety Valve Support (SVS). In 2008, these five programs spent about $3.4 billion, or, as noted above, about 77 percent of all HCF subsidies.[14]

[13] Source: *Monitoring Report* (various years). Expenditures for 2008 are extrapolated based on the first three calendar quarters reported in Table 1.10 of the 2008 *Monitoring Report*, except for High Cost Fund expenditures, which are obtained from Table 3.30 of the 2008 *Monitoring Report*.

[14] The remaining programs, Interstate Access Support (IAS) and High Cost Model (HCM) are available to larger phone companies, and account for approximately 23 percent of the total.

Table 1:
Summary of High Cost Fund Components[15]

Fund	2008 Subsidies	Share of 2008 High Cost Fund
High Cost Loop Support (HCLS)	$1,401,874,452	31.66%
Interstate Common Line Support (ICLS)	$1,532,859,504	34.62%
Interstate Access Support (IAS)	$647,465,838	14.62%
Local Switching Support (LSS)	$451,039,281	10.19%
High Cost Model Support (HCMS)	$351,389,587	7.94%
Safety Net Additive Support (SNAS)	$42,549,171	0.96%
Safety Valve Support (SVS)	$580,932	0.01%

Each HCF program has its own complex eligibility criteria and formula for calculating support levels, as briefly described below.[16]

- High-Cost Loop Support (HCLS): HCLS provides subsidies for the local portion (arbitrarily set at 75 percent) of rural carriers' non-traffic sensitive ("NTS") costs (e.g., telephone wires, poles, and other facilities used to connect customer premises to the public switched telephone network). Carriers whose NTS costs exceed 115 percent of a national benchmark rate receive subsidies ranging from 10 percent to 75 percent of the excess; depending on their size (rural carriers with more than 200,000 lines receive a lower proportion than those with 200,000 loops or less). The national benchmark rate was set in 2001 at $240 per loop per year, though it is recalibrated each year so that total HCLS spending does not exceed an FCC-imposed cap.[17] The cap, in turn, varies with inflation and with the total number of loops served by rural carriers.

- Interstate Common Line Support (ICLS): ICLS is available only to rate-of-return (i.e., rural) carriers, and provides compensation for the reduction in interstate access charges imposed by

[15] Source: 2008 *Monitoring Report*.

[16] For a more complete description of each HCF program, *see* 2008 *Monitoring Report* at 3-1 – 3-13.

[17] *See Rural Task Force Order* at ¶¶54-59.

the Commission in the 2001 *MAG Order*.[18] ICLS is intended to allow a carrier to recover its common line revenue requirement (as established through the rate of return process) if revenues from the Subscriber Line Charge (SLC) (which is capped by the Commission) are insufficient to do so. ICLS payments are based on projected data submitted by incumbent carriers, and are subject to an annual true-up process (to the extent that projections differ from finalized figures). There is no cap on spending under ICLS.

- Local Switching Support (LSS): LSS is available to rural carriers with fewer than 50,000 lines, and is premised on the notion (no longer accurate) that there are significant economies of scale in switching (i.e., that the smallest efficient switch will serve 50,000 customers). Payments are determined by the "LSS factor," which is multiplied by carrier's annual un-separated local switching revenue requirement to arrive at total subsidy payments. The LSS factor, in turn, depends on two highly dated statistics known as dial equipment module (DEM) factors. The DEM factors are derived from the ratio of interstate minutes to total dial equipment minutes as of 1996. The LSS factor is the difference between (1) the 1996 weighted DEM factor; and (2) the 1996 unweighted DEM factor. The weighted DEM factor depends on the number of access lines, such that study areas with fewer lines qualify for higher subsidies.

- Safety Net Additive Support (SNAS) and Safety Valve Support (SVS): These two relatively small programs are also restricted to rural carriers, and account approximately $43 million in USF subsidies in 2008 (or one percent of the HFC). Both are designed to reimburse carriers for making investments in rural telecommunications infrastructure in cases where subsidies would otherwise not be available due to the cap on high cost subsidies.[19]

- High Cost Model Support (HCM) and Interstate Access Support (IAS): HCM and IAS are the non-rural carrier analogs of the HCLS and ICLS, providing support for local costs in high cost areas and compensation for foregone interstate access revenues, respectively. However, unlike HCLS, HCM is calculated at a statewide level and is based on forward looking costs. Non-rural carriers are eligible for HCM only in states where forward looking costs are more than two standard deviations above the national average. IAS is similar to ICLS, except it is subject to a $650 million annual cap. Together, HCM and IAS account for approximately 23 percent of the HFC.[20]

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[18] *See* Federal Communications Commission, *Second Report and Order and Further Notice of Proposed Rulemaking in CC Docket No. 00-256, Fifteenth Report and Order in CC Docket No. 96-45, and Report and Order in CC Docket Nos. 98-77 and 98-166* (Released November 8, 2001).

[19] *See* Universal Service Administrative Company website (available at: http://www.universalservice.org); and 2008 *Monitoring Report.*

[20] The courts have twice overturned the Commission's regulations implementing the HCM program, most recently in 2005. In April 2009, the Commission issued a Notice of Inquiry seeking comments to "refresh the record" in the ongoing remand proceeding. See Federal Communications Commission, *In the Matter of High-Cost Universal Service Support, Notice of Inquiry* WC Docket Nos. 05-337 and 96-45 (April 8, 2009).

As the descriptions above suggest, the rules under which the HFC program operates are extraordinarily complex, a fact that has contributed to both administrative laxity and waste.[21] From an economic perspective, there are at least four fundamental defects in the way subsidies for RLECs are determined.

First, the definition of "rural telephone company" is based, in part, on demographic information as of 1996 – more than 13 years ago. Specifically, one of the four criteria that define a rural telephone company is that the company had "less than 15 percent of its access lines in communities of more than 50,000 *on the date of enactment of the Telecommunications Act of 1996*."[22] Hence, carriers are considered "rural" even if their study areas have blossomed into ex-urban meccas complete with shopping malls and tightly-packed town homes.

Second, the metrics used to determine USF subsidies are antiquated and arbitrary. There is simply no reason, for example, to believe that the national average loop cost in rural areas is $240 per year, that the HCLS allocation factor (which attributes 25 percent of costs to interstate services) accurately measures interstate versus intrastate costs,[23] that the minimum efficient scale

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[21] *See*, e.g., Congressional Budget Office, *Factors That May Increase Future Spending from the Universal Service Fund* (June 2006) at 27 ("In the past, the Universal Service Administrative Company and the FCC have been fairly liberal about approving investments that carriers claim will further the cause of universal service.") (hereafter *CBO*); and Federal Communications Commission, Office of the Inspector General, *The High Cost Program: Initial Statistical Analysis of Data from the 2007/2008 Compliances Attestation Examinations* (November 26, 2008) (available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-286971A1.pdf) (finding an error rate of 23 percent in program disbursements and annual overpayments of $970 million).

[22] *See* 47 U.S.C. § 3(a) (emphasis added).

[23] More broadly, there is no basis for attributing all of the costs of network elements which are used to produce both supported services (i.e., voice telephony) and unsupported services (e.g., data and video services) to supported services. *See, e.g., First Report and Order* at ¶261 ("Revenues from services in addition to the supported services should, and do, contribute to the joint and common costs they share with the supported services. Moreover, the former services also use the same facilities as the supported services, and it is often impractical, if not impossible, to allocate the costs of facilities between the supported services and other services. For example, the same switch is used to provide both supported services and discretionary services. Consequently, in modeling the network, the BCPM and the Hatfield 3.1 models use digital switches capable of

for a switch is 50,000 customers, or that cost factors derived from dial equipment minute ratios as of the mid-1990s are accurate (or even meaningful) in 2009. In short, there is simply no basis for believing that subsidies paid to RLECs bear any relationship to the amount of assistance that is required to provide "reasonably comparable" services at "just, reasonable and affordable rates."

Third, rural carriers receive subsidies based on embedded costs rather than forward-looking costs, producing excessive subsidies to RLECs and discouraging investment by competitors. Both the FCC and the Joint Board on Universal Service have recognized these problems since 1997, when the first USF Order was issued. As the Commission said then,

> The use of embedded cost would discourage prudent investment planning because carriers could receive support for inefficient as well as efficient investments. The Joint Board explained that when "embedded costs are above forward-looking costs, support of embedded costs would direct carriers to make inefficient investments that may not be financially viable when there is competitive entry…." We also agree … that ***the use of embedded cost to calculate universal service support would lead to subsidization of inefficient carriers at the expense of efficient carriers and could create disincentives for carriers to operate efficiently***.[24]

Based on this finding, USF subsidies for non-rural carriers have been based on forward-looking costs since the High Cost Model program was first established. For rural carriers, however, the FCC concluded that it did not have sufficient information to estimate forward looking costs, and so left the embedded cost methodology in place on a temporary basis, and committed to move RLECs to a forward-looking approach by 2001. When the time arrived to do so, however, the Commission again demurred, and RLECs continue to receive USF support based on embedded

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providing both supported services and discretionary services. Therefore, it would be difficult for the models to extract the costs of the switch allocated to the provision of discretionary services.")

[24] *See First Report and Order* at ¶228 (emphasis added).

costs.[25] One consequence of continued reliance on embedded costs – which are primarily "fixed" in nature – is that RLECs that lose lines to competitors experience little or no reduction in subsidies: Indeed, the subsidy per line actually increases.

Fourth, and relatedly, HCF rules have permitted rural carriers to use their generous HCF subsidies to upgrade their infrastructures to provide broadband and even video services. As the Congressional Budget office explained in a 2006 report, the HCF

> …does not explicitly fund investment in broadband, but many of the investments that it does support allow carriers to deliver both conventional telephone and broadband service. Like carriers everywhere, rural companies are improving their older local loops and running more high-capacity and high-quality fiber-optic cable closer to their customers. Those upgrades are included in the historical costs that serve as the basis for high-cost loop support; thus, current policy implicitly provides funds for broadband in rural areas….[26]

Thus, generous USF subsidies have been used by RLECs to aggressively deploy broadband and video services. The NECA, for example, reports that "Overall broadband availability to customers served by TS pool members [i.e., RLECs] reached 92 percent in 2008."[27] Similarly, the National Telecommunications Cooperative Association, which consists primarily of carriers serving study areas of 1,000-5,000 lines, reports that 99 percent of members responding to a recent survey were offering DSL service, and 44 percent were offering fiber-to-

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[25] *See* e.g., *Rural Task Force Order* at ¶3 ("As the Joint Board suggested, we intend to develop over the next few years a long-term universal service plan for rural carriers that is better coordinated with the non-rural mechanism. In particular, we intend to develop a long-term plan that better targets support to carriers serving high-cost areas, while at the same time recognizing the significant differences among rural carriers, and between rural and non-rural carriers.")

[26] *See CBO* at 25 (emphasis added). *See also* CBO at 26 ("Recent surveys of investment patterns among rural carriers offer more-direct evidence of the dual purpose of such investments. In a survey of its rural members, the National Telecommunications Cooperative Association found that 81 percent of respondents were using their investment in fiber loop to extend the reach of DSL service. Furthermore, much of that investment was devoted to speeding up potential connections rather than simply establishing basic broadband connections.")(references omitted).

the-home (FTTH) or fiber-to-the-curb (FTTC) service, as of mid-2008; and, that 71 percent of respondents expected to offer FTTH/FTTC services to more than three-quarters of their customers by year-end 2009.[28]

While RLECs tout these figures as evidence of the effectiveness and continued need for USF subsidies, the evidence below demonstrates that the subsidies in many cases are being used to subsidize the rollout of data and video services in areas already served by unsubsidized private competitors – that is, to subsidize duplicative services. Moreover, the USF program – which calculates subsidies based solely on costs – lacks any mechanism for reducing subsidies to reflect the increased RLEC revenues generated by these services. Thus, the USF program has allowed RLECs to use government subsidies to finance the rollout and operation of new products, and services, while keeping 100 percent of the returns on those investments for their shareholders.[29]

In summary, USF subsidies to RLECs are based on historical rules which bear little or no relationship to modern economic realities: While costs have declined, revenues have increased, and service territories have evolved and grown less "rural," RLECs have largely been able maintain a level of subsidies based on decades-old assumptions.

III. SUBSIDIES TO AREAS SERVED BY CABLE TELEPHONY

Cable companies have expanded cable telephony coverage into literally hundreds of RLEC service territories, where they are serving millions of customers. The very existence of unsubsidized cable telephony in these areas – offered at prices sufficiently low to win customers

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[27] National Exchange Carrier Association, *Trends 2008: A Report on Rural Telecom Technology* (January 2009) at 3.

[28] National Telecommunications Cooperative Association, *2008 Broadband/Internet Availability Survey Report* (October 2008) at 7, 14.

away from the subsidized incumbents – is *prima facie* evidence that RLECs in these areas should no longer receive USF support. Yet, as the analysis in the first section below demonstrates, RLECs received approximately $1.6 billion dollars in 2008 to serve customers in study areas where unsubsidized cable telephony is available.

Rural telephone companies acknowledge the growing presence of competition in their service territories, but argue that "competition is concentrated in the more densely populated portions of rural service areas."[30] The data presented below directly contradicts this contention, showing that there are hundreds of study areas where the service territories of cable voice providers are comparable to those of their subsidized RLEC competitors.

A. There Is Extensive Cable Voice Coverage in RLEC Territories

Cox Communications deployed the first circuit-switched cable telephone system in 1997, in Orange County, California,[31] but cable telephony did not really take off until the mid-2000s, when Voice Over Internet Protocol technology (VoIP) dramatically reduced the cost of deploying telephone service on digital cable infrastructures.[32] According to SNL Kagan, as recently as 2004 VoIP telephony was available to only 21 percent of homes passed by cable systems, and more than 80 percent of the 3.6 million cable telephony subscribers were using

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[29] As noted above, because of its reliance on embedded costs, the program does not even re-calculate allowable costs to reflect the fact that the underlying infrastructure is being used to provide multiple services.

[30] National Exchange Carrier Association, *Trends 2008: A Report on Rural Telecom Technology* (hereafter *Rural Trends*) at 4-5. ("For Traffic Sensitive pool members, competition contributed to a decline of 278,514 access lines, a 5 percent drop over last year. This downward trend is part of an industry-wide decline in access lines attributable to competition from cable operators offering Voice over Internet Protocol (VoIP) as well as customers replacing land lines with mobile service. More than three-fourths of TS pool members report some competition in their service area. This is up from two-thirds in 2007. Typically, this competition is concentrated in the more densely populated portions of rural service areas.")

[31] *See, e.g.*, "Cox Cable Wants to Be Your Phone Company," *Business Week* (May 24, 1999) (available at http://www.businessweek.com/1999/99_21/b3630136.htm).

circuit-switched technology.[33] Just four years later, Kagan reported that cable telephony was available to approximately 84 percent of U.S. cable-passed households; and analysts estimate that as of year-end 2008 there were more than 20 million cable telephony subscribers in the U.S.[34]

The analysis of the spread of cable telephony in rural America discussed below is based on data from *Warren's Cable Factbook*, which provides detailed information for each cable system in the U.S., including (since 2005) the availability of cable telephony. The *Factbook* information is provided in a Geographic Information System (GIS) format, which allows cable system boundaries to be matched with the study area boundaries that define ILEC service territories, and also with a wide variety of demographic and geographic information. The analysis in this section is based on matching cable system service territories[35] with the 1,314 RLEC study area boundaries using GIS software.[36]

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[32] *See* e.g., InStat, *The Worldwide Market for Cable Telephony Services* (April 2007) at 18-19.

[33] Kagan Research, *Cable Futurecast* (May 2006) at 8-9.

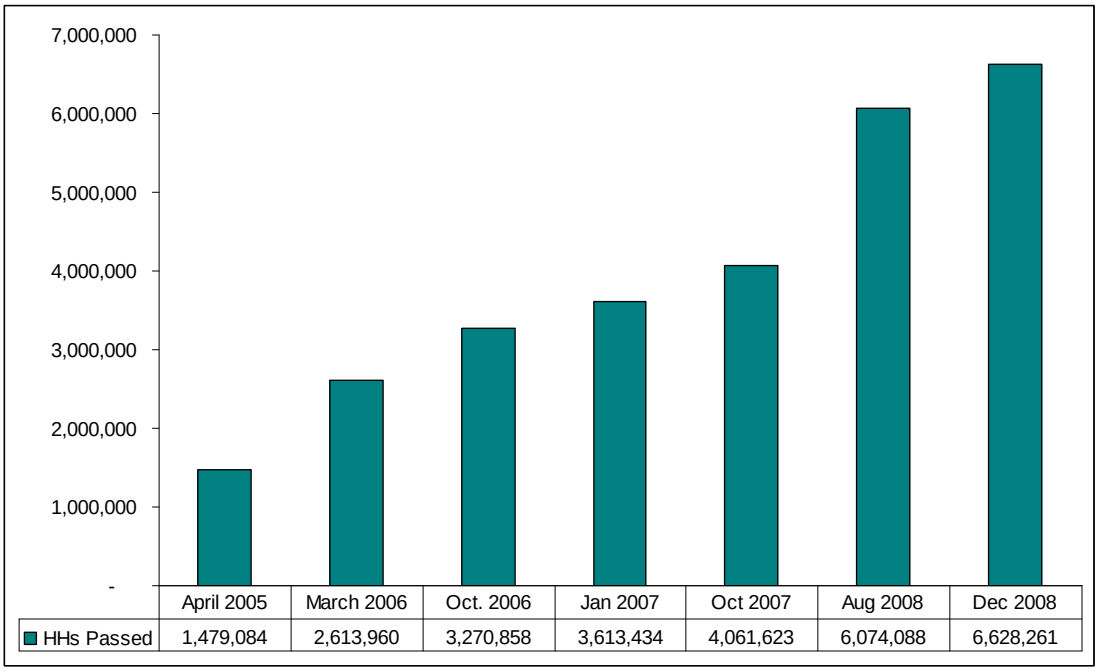
[34] SNL Kagan, *2008 Broadband Cable Financial Databook*; see also Jeff Wlodarczak, "Equity Research: U.S. Q1'08 Video/Data/Phone Trends," *Wachovia Capital Markets LLC* (May 15, 2008) (hereafter *Wachovia Research Report*) at 9.

[35] Warrens provides detailed information on the location (i.e., cities, towns, etc.) of each cable operator's service territory, but does not provide detailed, street-by-street maps of cable infrastructure, which in principle could result in either overstating or understating actual coverage. Mapping the 2008 Warrens boundaries onto census-block level data on household locations shows that 74 percent of U.S. households are passed by cable voice. This is 10 percentage points less than the SNL Kagan estimate of 84 percent, suggesting that the cable coverage estimates used here are conservative, i.e., that in total they understate rather than overstate actual cable coverage. The estimate for any particular study area may be understated or overstated.

[36] The *Monitoring Report* contains information for 2,006 study area codes, of which 1,438 are ILEC study areas and 568 are CETC study areas. (CETC study areas typically encompass all areas served by a CETC within each state, and frequently overlap multiple ILEC study areas. The FCC often creates a CETC study area code before subsidies are actually disbursed: Of the 568 CETC study area codes, only 339 received USF subsidies in 2008.) Of the 1,438 ILEC study areas, 1,404 are located in the lower 48 states, which are the focus of the analysis here. Of these 1,404, 10 study areas were excluded or combined with other study areas due to constraints on data availability and/or changes in study area definitions over time, bringing the total 1,394. Of these, 1,314 are rural study areas, and the remaining 80 are non-rural.

Figure 3 below shows the number of rural[37] households passed by cable telephony[38] based on this analysis. As the figure shows, the number of rural households with cable voice has more than quadrupled in less than four years, rising from 1.5 million in April 2005 to over 6.6 million in December 2008, or 43 percent of the households in RLEC study areas.

Figure 3:
Rural Households with Cable Telephony Coverage, 2005-2008



	April 2005	March 2006	Oct. 2006	Jan 2007	Oct 2007	Aug 2008	Dec 2008
HHs Passed	1,479,084	2,613,960	3,270,858	3,613,434	4,061,623	6,074,088	6,628,261

Source: Warrens Cable Fact Book; Empiris LLC

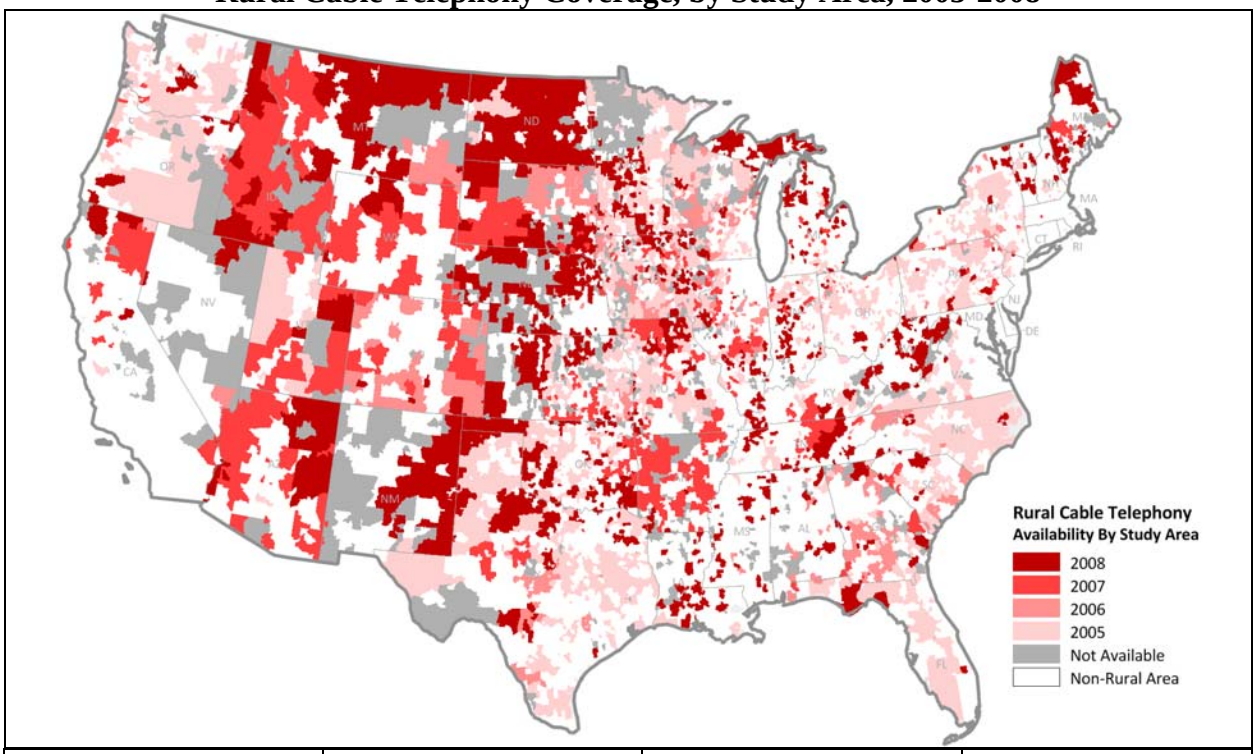
Figure 4 shows the geographic spread of cable telephony over the same period. The map shows rural study areas with at least some cable telephony availability in each period; the data table shows that, between 2005 and 2008, the proportion of rural study areas with cable

[37] For this purpose, a "rural" area as defined here is an area that lies within a census block inside an RLEC study area. The National Exchange Carrier Association classifies study areas as rural or non-rural in Appendix E of its 2008 USF Data Submission (available at http://www.neca.org/). As demonstrated below, "rural" study areas are often not rural as the term is generally understood.

[38] The Warrens data identifies 56 study areas where cable telephony is provided by the RLEC or by the RLEC's holding company. Because this analysis is focused on competitive cable telephony offerings, it counts a

telephony increased from 14 percent to 57 percent, and that, by 2008, cable telephony was available in 743 of 1,314 rural study areas. Together, these study areas accounted for 87 percent of the rural population.

Figure 4:
Rural Cable Telephony Coverage, by Study Area, 2005-2008



	Rural Study Areas with Cable Voice Availability	Percentage of Rural Study Areas Covered	Percentage of Rural Population in Covered Study Areas
2005	189	14%	41%
2006	285	22%	61%
2007	396	30%	72%
2008	743	57%	87%

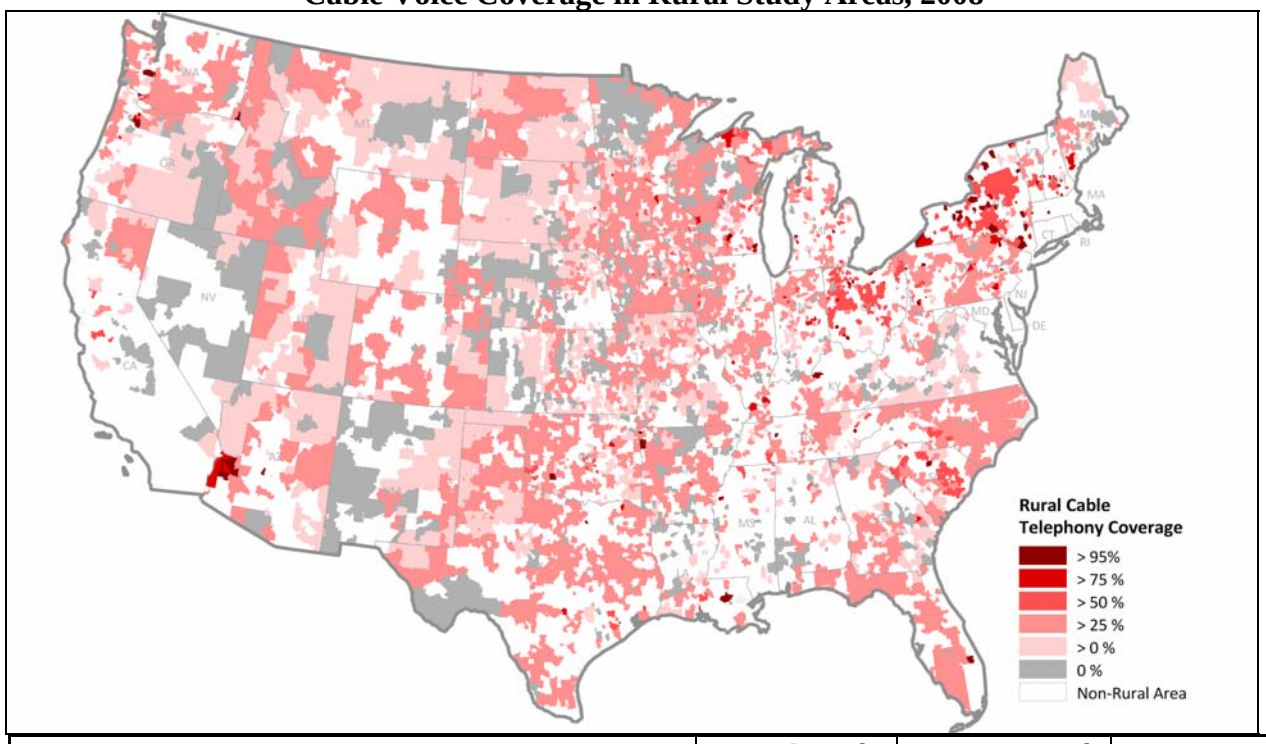
As noted above, cable service territories and RLEC study areas do not overlap completely: Study areas are essentially legacy service territories of telephone companies dating

household as being passed by cable voice only if that service is offered by a carrier other than the local RLEC (or its holding company).

back to the early 20th Century when telephone networks were first constructed, while cable service territories generally mirror the local (i.e., county or city) government boundaries associated with cable franchises, which were typically awarded in the 1960s and 1970s. Thus, it is not uncommon for cable systems to cover multiple RLEC service territories and, conversely, for there to be multiple cable systems operating within a given RLEC boundary.

The data in Figure 5 take these partial overlaps into account by showing the extent of cable voice coverage in rural study areas, as measured by the proportion of households in each study area to which cable telephony is available. As the figure shows, cable telephony is available in 57 percent of all rural study areas, encompassing 87 percent of the rural population. Moreover, there are 277 study areas, encompassing 45 percent of the rural population, where cable telephony is available to more than 50 percent of households, and 83 study areas where coverage exceeds 95 percent. By themselves, of course, these data say nothing about whether the areas served by cable within each study area are relatively dense or rural, or relatively cheap or costly to serve. However, the analysis in Section III(B) below demonstrates that there are hundreds of study areas where the portions served by cable companies are *less* densely populated (and hence presumptively *more* expensive to serve) than the study area as a whole.

Figure 5:
Cable Voice Coverage in Rural Study Areas, 2008



	Number of Rural Study Areas	Percentage of Rural Study Areas	Percentage of Rural Population
Total RLEC Study Areas	1,314	100%	100%
Study Areas w/Any Cable Voice Coverage	743	57%	87%
Study Areas w/Cable Voice Coverage > 25% of HHs	418	32%	68%
Study Areas w/Cable Voice Coverage > 50% of HHs	277	21%	45%
Study Areas w/Cable Voice Coverage > 75% of HHs	165	13%	14%
Study Areas w/Cable Voice Coverage > 95% of HHs	83	6%	4%

The amount of USF support paid to RLECs in regions where cable telephony is available can be assessed based on data on USF subsidy payments for each study area reported in the FCC's 2008 USF *Monitoring Report*,[39] which contains projections of full-year subsidy payments

[39] *See* 2008 *Monitoring Report*. Table 3.30 of the 2008 *Monitoring Report* contains detailed information on USF subsidies by study area.

by study area for 2008.[40] Data from the National Exchange Carrier Association (NECA) were also compiled for each incumbent carrier.[41] NECA's 2008 USF data submission contains additional information at the study area level, including loop data, holding company information, and a rural/non-rural indicator variable.

Combining the USF subsidy data with the data on cable voice availability discussed above shows that, of the $2.36 billion in HCF support paid to RLECs in 2008, $1.62 billion (or 69 percent) was paid to RLECs serving the 743 study areas with cable voice coverage. As shown in Table 2, hundreds of millions of dollars in subsidies went to RLECs where cable coverage was widely available: $504 million went to the 277 study areas where cable voice was available to more than half of all households; and, $109 million went to study areas where cable voice availability was virtually ubiquitous (i.e. available to 95 percent of households or more).

Table 2:
USF Subsidies to RLECs Study Areas with Cable Voice Coverage, 2008

	Number of Rural Study Areas	USF Subsidies ($millions)	Percentage of USF Payments to RLECs
Total RLEC Study Areas	1,314	$2,358	100%
Study Areas w/Cable Voice Coverage	743	$1,618	69%
Study Areas w/Cable Voice Coverage > 50% of HHs	277	$504	21%
Study Areas w/Cable Voice Coverage > 75% of HHs	165	$229	10%
Study Areas w/Cable Voice Coverage > 95% of HHs	83	$109	5%

B. Cable Voice is Often Available in "High Cost" Areas

As noted above, RLECs argue that, even in areas where other carriers are providing unsubsidized coverage, USF subsidies are still necessary because other carriers only cover "low-

[40] *See* 2008 *Monitoring Report* at 3–1.

[41] *See* National Exchange Carrier Association, 2008 USF Data Submission (available at http://www.neca.org/).

cost" areas, leaving the RLECs to serve the most expensive customers.[42] The evidence presented below demonstrates otherwise.

First, the data presented above show that the RLEC's "cherry picking" argument is *prima facie* invalid for more than 80 study areas: If unsubsidized cable companies are serving 95 percent or more of the households in a study area – meaning that a subsidy can be justified for, at most, five percent of households – it is difficult to understand why the USF should continue paying subsidies on 100 percent of the RLEC's lines. Put differently, barring evidence that the five percent (or less) of homes not passed by cable are *significantly* more costly to serve than the other ninety-five percent, it is clear that telephone service can be provided without subsidy in such study areas.

Second, a comparison of the portions of study areas covered by cable voice service with the portions not covered shows that, in many cases, cable companies serve the "high-cost" portions. If a cable company can provide unsubsidized wireline voice service in the high-cost portions of an RLEC study area, the RLEC should be able to provide unsubsidized service in the entire study area; that is, no subsidies should be required.

In the wireline telecommunications business, most of the geographic variation in cost is the result of some combination of population density and topography: densely populated flat regions are cheap to serve; sparsely populated mountainous regions are expensive. Comparing

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[42] One study that appears to support the RLEC's position is Michael J. Balhoff, Robert C. Rowe, and Bradley P. Williams, *Universal Service Funding: Realities of Serving Telecom Customers in High-Cost Regions, Implications for the Texas Universal Service Fund* (Summer 2007) (available at http://www.balhoffrowe.com/pdf/USF%20Funding%20Realities%20of%20Serving%20Telecom%20Customers%20in%20High%20Cost%20Regions%207-9-07.pdf). The findings below suggest Balhoff *et al*'s conclusions (i.e., that cable voice deployments are largely limited to high-density "town center" areas) are incorrect or, perhaps, simply obsolete, as the Balhoff study appears to rely on data from 2006, when cable voice deployment was still limited, as shown in Figures 3 and 4 above..

these variables for the areas with and without cable voice coverage in each RLEC service territory shows that, in many study areas, the portion of the study area served by cable has lower population density, more severe topography, and/or lower teledensity than the area served only by the RLEC.[43]

Specifically, as shown in Table 3, there are 148 study areas in which the area served by cable voice has lower population density (and thus is presumptively more costly to serve) than the area served exclusively by the RLEC. In 2008, as shown in the third column from the left, RLECs received approximately $276.9 million to provide service in these 148 study areas. Similarly, RLECs received $226.1 million in 112 study areas in which the severity of the topography (measured by the difference between maximum and minimum elevation) in the area not covered by cable voice was less than the severity in the area covered by cable voice. Finally, based on an alternative measure of density, the average distance from each household to the nearest wire center,[44] RLECs received $598.2 million in 332 study areas in which density was lower (distance from the wire center was greater) in the area served by cable voice in than in the area not served.

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[43] These are the three main characteristics used in the FCC's Hybrid Cost Proxy Model (HPCM) to estimate the costs of local telephone service. The HPCM is a bottom-up, engineering/economic model of modern telephone networks, which takes geo-coded locations, constructs a (theoretically) optimal telecommunications network, and uses this information to estimate the cost of providing telephone service. In the HCPM, population density, terrain, and distance to wire center interact with algorithms for loop and network design to produce cost estimates. See http://www.fcc.gov/wcb/tapd/hcpm/welcome.html. In addition, population density is the standard relied upon by the FCC for determining whether a CETC is "creamskimming" if it seeks to serve a subset of a rural study area. See 47 U.S.C. 54.202 (c) ("In instances where an eligible telecommunications carrier applicant seeks designation below the study area level of a rural telephone company, the Commission shall also conduct a creamskimming analysis that compares the population density of each wire center in which the eligible telecommunications carrier applicant seeks designation against that of the wire centers in the study area in which the eligible telecommunications carrier applicant does not seek designation.").

[44] The distance from the population-weighted centroid of each area to the wire center is used to estimate the average distance from customers to central offices.

The table also shows the impact of including study areas in which the difference between the cost characteristics in the areas served by cable and not served by cable areas is inconsequential, i.e., less than 10 percent. In those cases, the excess subsidies are even larger, ranging from $325 million to $660 million.

Table 3:
RLEC Funding in Study Areas Where Cable Voice Serves "High Cost" Regions

	Study Areas	RLEC Subsidies	Total Subsidies (RLEC + CETC)
Cable Service Area Population Density			
- Less Than Area Not Covered by Cable Voice	148	$276,945,024	$398,013,552
-Within 10% of Area Not Covered by Cable Voice	179	$325,048,800	$453,697,232
Cable Service Area Topography			
- More Severe Than Area Not Covered by Cable Voice	112	$226,071,872	$282,858,344
- Within 10% of Area Not Covered by Cable Voice	166	$378,894,016	$516,636,000
Cable Service Area Distance to Wire Center			
- Greater Than Area Not Covered by Cable Voice	332	$598,220,288	$808,308,752
- Within 10% of Area Not Covered by Cable Voice	359	$659,623,744	$904,989,408
Note: Study Areas Where Cable Voice Covers 95% or More of HHs	83	$109,299,776	$137,202,878

Thus, in study areas that account for between $226 million and $598 million in RLEC subsidies, cable companies are serving what appear to be the *more expensive* portions of the study area; and, in study areas that account for between $325 million and $660 million in RLEC subsidies, there is *no significant difference* between the characteristics of the area served by cable voice and the area served only by the RLEC. The fact that the cable company is able to

provide unsubsidized service in these areas is thus *prima facie* evidence that no subsidy is needed *throughout* the area.

These figures, of course, do not include the $109 million in subsidies flowing to the 83 study areas where cable coverage is ubiquitous (and hence the "overlap" and "non-overlap" areas are essentially identical). Including these subsidies brings the total amount of unnecessary subsidies to between $434 million ($325 million + $109 million) and $769 million ($660 million + $109 million).

To capture fully the impact of eliminating the unnecessary subsidies on the USF fund, it is also necessary to account for subsidies to competitive eligible telecommunications carriers ("CETCs"), which are based on the subsidies paid to incumbents in study areas where the CETCs operate – hence, eliminating unnecessary subsidies to incumbents would also eliminate subsidies to CETCs in the same study areas. As shown in the right-hand column of Table 3,[45] including these corresponding reductions in CETC subsidies brings the total to between $591 million ($454 million + $137 million) and $1.042 billion ($905 million + $137 million).

C. Examples of Areas Where Cable Voice is Available and Subsidies Appear Unjustified

The evidence presented above suggests that a combination of economic change (i.e., growth in once-rural areas) and technological change (i.e., the spread of cable voice service) has eliminated or significantly reduced the need for continuing USF subsidies in a significant

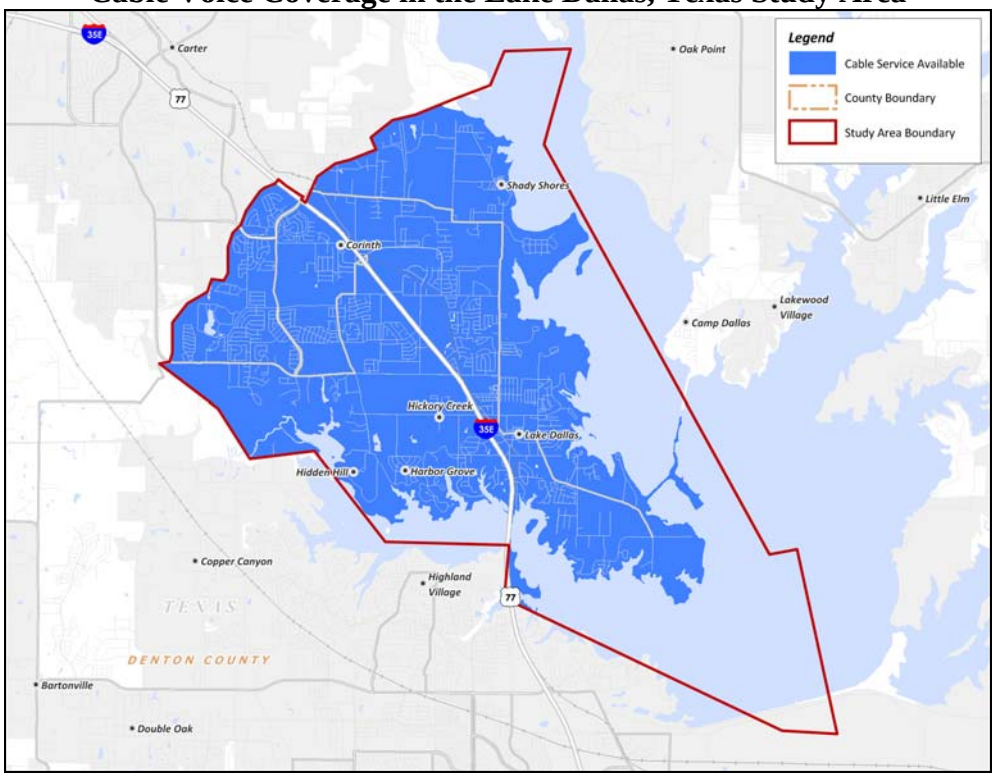
[45] CETC funding data were derived from Table 3.30 of the 2008 *Monitoring Report*. CETC study area codes were matched to ILEC study area codes based on USAC filings from Q4 2008. *See* USAC FCC Filings, Fourth Quarter Appendices (2008), file HC18 (available at http://www.usac.org/about/governance/fcc-filings/2008/). Because CETC study areas sometimes overlap multiple ILEC study areas, CETC funding was allocated across ILEC study areas based on each CETC's reported lines in each ILEC study area. If a CETC code could not be matched with an ILEC code based on USAC filings, CETC funding was allocated evenly across ILECs within a given state.

number of RLEC study areas. Below are two examples of areas where it is difficult to imagine that continued subsidies are needed to provide "reasonably comparable" telephone service at "reasonable" prices – indeed, areas where ubiquitous or nearly ubiquitous telephone service is available from cable providers which receive no subsidies. Yet, the two RLECs described below collectively receive over $4 million annually to serve less than 30,000 lines, an average of over $11 per line per month.

- **Centurytel of Lake Dallas, Texas**

Study area 442101 ("Lake Dallas") is located in Denton County, Texas, approximately 30 miles north of downtown Dallas, Texas on Interstate 35. The incumbent telephone company, CenturyTel, received $1.8 million in 2008 for serving just over 10,000 lines, an average subsidy of about $181 per line served.

Figure 6:
Cable Voice Coverage in the Lake Dallas, Texas Study Area

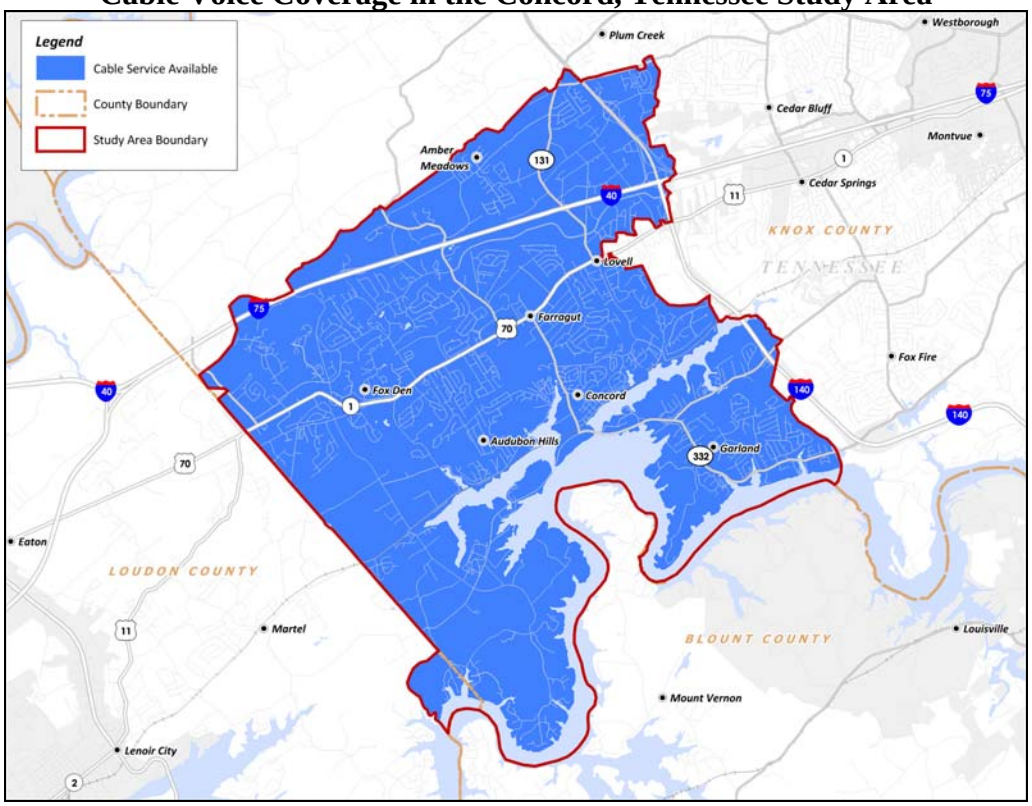


Though once a resort community, Lake Dallas is now a rapidly growing commuter community for the Dallas-Ft. Worth metroplex, and is part of the Dallas-Ft. Worth-Arlington Metropolitan Statistical Area. It is part of Denton County, where the census bureau reports the population grew by nearly 50 percent between 2000 and 2008. The population density in the Lake Dallas study area is over 900 persons per square mile, and the median household income is approximately $82,000, well above the U.S. average of about $50,000. Virtually all of the households in the Lake Dallas study area are served by Charter Communications, and cable voice service is available throughout the area.

- **Concord Telephone Exchange, Tennessee**

Study area 209559 ("Concord") is located approximately 15 miles west of Knoxville, Tennessee along Interstates 40 and 75. The incumbent telephone company is the Concord Telephone Exchange, a subsidiary of TDS. In 2008, Concord Telephone received $2.2 million for serving approximately 18,000 lines, an average of $117 per line.

Figure 7:
Cable Voice Coverage in the Concord, Tennessee Study Area



The median income in the Concord study area is nearly $92,000, reflecting of the area's growth into what its main town, Farragut, describes as an "upscale residential" area with "beautifully designed parks, great recreation opportunities and lovely residential subdivisions."[46] The population density in the study area is 875 persons per square mile. Virtually all of the homes in the Concord study area are served by either Charter or Comcast, and cable voice is available throughout the area.

[46] *See* www.townoffarragut.org.

IV. EXCESS SUBSIDIES TO RLECS HARM CONSUMERS AND REDUCE ECONOMIC WELFARE

An important consequence of providing excess subsidies to RLECs is the cost of the subsidies themselves – that is, the cost, both directly and in terms of deadweight loss, of the taxes used to support them. These costs are real, despite the fact that the "taxes" are called "contributions" and do not show up as expenditures in the Federal Budget. As the Congressional Budget Office explained in 2006,

> The benefits provided by the USF's programs impose a cost on the economy, regardless of how those programs are treated in the budget. Both consumers' purchasing decisions and providers' investment decisions are influenced by the way the USF collects its receipts and spends its resources.[47]

As noted above, USF "contributions" are collected through a pro-rata assessment on interstate and international telephone services, including those provided by cable operators. As shown in Figure 6, the "contribution factor" (i.e., tax rate) in long distance telephone bills more than doubled between 2000 and 2008, and in the last two quarters of 2009 has exceeded 12 percent for the first time. Both the Federal-State Board on Universal Service and the FCC itself have stated on multiple occasions that such high levels of taxation threaten the sustainability of the USF fund.[48]

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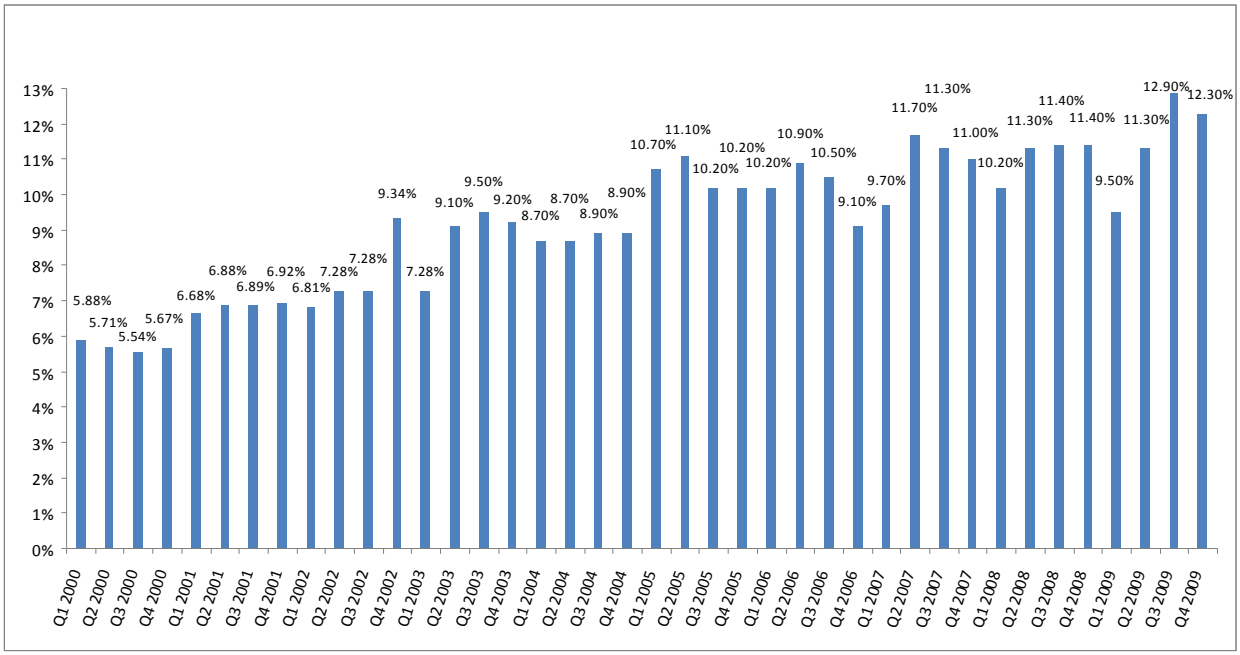
[47] *See CBO* at viii.

[48] *See, e.g.*, Federal State Joint Board on Universal Service, *Recommended Decision*, CC Docket No. 96-45 and WC Docket No. 05-337 (Released May 1, 2007) at ¶4 and Federal Communications Commission, *Order*, CC Docket No. 96-45 and WC Docket No. 05-337 (Released May 1, 2008) ("We find that the continued growth of the fund at this rate is not sustainable and would require excessive (and ever growing) contributions from consumers to pay for this fund growth.").

Figure 9:
USF Contribution Factor (2000-2009)[49]



Economists have estimated that the welfare costs of such taxes are extremely high: One study, for example, estimates that economic welfare is reduced by about $1.25 for each $1.00 in universal service taxes collected.[50] Based on the range of estimates developed in Section III for total excess subsidies (between $420 million and $1 billion), the welfare cost – i.e., the reduced consumer surplus – associated with excess subsidies to rural LECs is between $525 million and $1.3 billion.

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[49] Source: *Monitoring Report* (various years), and FCC Public Notices for various years, available at: http://www.fcc.gov/omd/contribution-factor.html.

[50] *See* Jerry Hausman, "Taxation by Telecommunications Regulation," *Tax Policy and the Economy* 12:1 (1998) 29-38. It also bears emphasis that cable telephony is a relatively new technology, and that taxation of new products is frequently associated with even higher efficiency losses. For instance, a study on the taxation of wireless service found that economic welfare was reduced by $1.53 for each $1.00 in revenue generated. *See* Jerry Hausman, "Efficiency Effects on the U.S. Economy from Wireless Taxation," *National Tax Journal* 53:2 (2000) 733-942.

V. POLICY IMPLICATIONS AND PROPOSALS FOR REFORM

The analysis above demonstrates hundreds of millions of dollars are being paid to subsidize rural telephone companies in areas where unsubsidized cable telephony is available, or where cable operators have demonstrated that subsidies are not necessary to provide affordable telephone service.

These results provide strong support for the proposition that the High Cost Fund is in dire need of reform, especially as it relates to subsidies to rural carriers. They also have implications for broadband policy, including the grant programs recently enacted under the American Recovery and Reinvestment Act (ARRA).

With respect to the High Cost Fund itself, the results above strongly suggest that the current approach of treating all "rural telephone companies" as if they were identical is, in practice, discriminatory, inefficient and wasteful.[51] While there no doubt remain areas where subsidies are necessary to provide telephone service at prices reasonably comparable to those in urban areas, the evidence above demonstrates that there are also hundreds of study areas where, as a result of population growth, technological change and other factors, subsidies are no longer needed. Furthermore, the evidence that subsidies are no longer required does not depend on debates over complex accounting rules or cost allocation formulas: It is apparent from the fact that *unsubsidized wireline telephone service is actually being offered in these areas.*

[51] The need to recognize diversity among rural carriers has been recognized for many years. See, e.g., Rural Task Force, *The Rural Difference* (2000) at 14 ("That is, 'one-size-fits-all' national universal service policy is unlikely to be successful in fulfilling the national universal service principles contained in the 1996 Act. To be successful, policies and mechanisms ultimately adopted must be flexible enough to accommodate a wide range of market and operational circumstances faced by telecommunications carriers serving rural populations.")

One widely discussed approach to addressing the problems of the High Cost Fund is reverse auctions, under which potential providers would bid to serve as the provider of last resort in a given service territory.[52] One challenge to a reverse auction approach, however, is how to define service territories for bidding purposes. As the analysis above suggests, an approach which defined service territories based on the boundaries of RLEC study areas would be highly problematic. First, a study-area based approach to reverse auctions would naturally discriminate against non-incumbents. As the FCC itself has explained, "Basing the geographic area on any particular carrier's service area would likely give that carrier an advantage in bidding because competing carriers are unlikely to have the same service footprint."[53] Second, the evidence above suggests that a study-area based approach would also be inefficient, as it would fail to distinguish between areas within study areas where subsidies are not needed (and competition may already be occurring), on the one hand, and areas where continued subsidies are necessary (and competition is unlikely).

The challenge of designing and implementing a reverse auction approach to high-cost support is a daunting one, and such a system is not likely to be implemented in the short run. In the interim, the Commission should recognize that the presence of significant facilities-based wireline competition in a study area is a clear signal that subsidies to the incumbent RLEC should be reduced or eliminated, and it should establish a process for making such reductions. For example, the Commission could create a rebuttable presumption that any RLEC facing facilities-based wireline competition for more than a certain percentage of the households in its

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[52] *See e.g.,* Federal Communications Commission *In the Matter of High-Cost Universal Service Support, Federal-State Joint Board on Universal Service, Notice of Proposed Rulemaking*, WC Docket No. 05-337, CC Docket No. 96-45 (January 29, 2008) (hereafter *Reverse Auctions Notice*).

study area would lose HCF support, unless it can demonstrate that the costs of serving the remaining households exceed some threshold.

The results above also have significant implications for national broadband policy, including the grants recently authorized under the ARRA. Most importantly, the analysis here demonstrates the importance of distinguishing between areas where competition is economically viable, on the one hand, and areas where it is not, and limiting government support exclusively to the latter. Again, complex formulas and accounting exercises are not always required to tell the difference: The presence of an unsubsidized competitor is *prima facie* evidence that subsidies are not required; and, the entry of an unsubsidized competitor is *prima facie* evidence that subsidies should end.

VI. CONCLUSIONS

Reform of Federal universal service policies has proven to be extraordinarily difficult, with the FCC promising on numerous occasions that such reform would be forthcoming on an "expedited" and "timely" basis – and failing to deliver. In fairness, the issues are difficult ones, and the challenge of finding a solution which is both equitable and economically efficient is daunting. Comprehensive reform is certainly a desirable goal, but the evidence suggests it will be difficult to achieve.

The difficulties of achieving comprehensive reform, however, should not prevent the Commission for addressing obvious and unjustifiable inequities and inefficiencies in the current system on a case-by-case, issue-by-issue basis. Continuing to pay subsidies to RLECs which face unsubsidized competition from facilities-based wireline competitors is both inequitable and

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[53] *Reverse Auctions Notice* at ¶19.

inefficient, and can easily be addressed in a targeted fashion. With as much as $1 billion annually at risk, it should do so expeditiously.